

Understanding the Professional Socialisation of Omani Radiographers

‘Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor in Philosophy by Hasna Al-Maslahi.’

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This thesis is the product of my own work. The material presented is not being submitted in whole or part for any other degree qualification.

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Glossary of Terms

Big Institutions	Ministry of Health (MoH) institutions that offer a tertiary level of care and provide conventional radiography, Computerised Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, Mammography and Bone Densitometry (BMD) services. Radio-Nuclide Imaging services may or may not be included.
Focal point/ radiographer coordinator	A radiographer assigned by the MoH to act as a representative for radiographers in meetings and a coordinator between the Director General of Health Affairs and radiographers in the primary healthcare institutions.
Head of department	A medical officer in-charge.
In-charge/ manager Radiographer	Unofficial designation of an appointed chief radiographer.
Interns	Newcomers officially employed by the MoH but undergoing an internship programme that is supervised by a professional training institution.
Occupant	An employee in a government sector including the MoH.
Occupant Affairs	Subjects relevant to employees as occupants in jobs.
Polyclinics and Health Centres	MoH institutions that offer a primary level of care and provide conventional radiography and ultrasound services.
Radiographers	Qualified radiographers who have completed the internship programme and are working in their assigned workplace.
Radiographer in- charge of the department	A senior radiographer supervisor who looks after the radiographers and radiography services in the ministry of health institutions.
Small MoH Institutions	MoH institutions that offer a secondary level of care and provide conventional radiography and ultrasound services. Computerised Tomography and mammography services may or may not be included.
Workplace	A physical place that provides radiographers with a social space and areas for professional practice.
CE	Continuing Education
CoR	The College of Radiographers
CPD	Continuing Professional Development
CPSM	The Council of Professions Supplementary to Medicine
CT	Computerised Tomography
DGET	Directorate General of Education and Training
DGHS	Directorate General of Health Services
DGSMC	Directorate General of Specialised Medical Care
ECG	Electrocardiogram
HC	Health Centre
HCPC	The Health and Care Professions Council
HPC	The Health Professions Council

IHS	Institute of Health Sciences
IPHS	Institute of Psychology, Health and Society
ITM	Institute of Translational Medicine
IV	Intravenous injections
MoD	Ministry of Defence
MoH	Ministry of Health
MOIC	Medical Officer In-Charge.
MRI	Magnetic Resonance Imaging
NHS	National Health Service
OAR	Omani Association of Radiographer
OMSB	Oman Medical Specialty Board
OT	Operating Theatre
PDO	Petroleum Development of Oman
PSA	Professional Standards Authority
ROP	Royal Oman Police
RPA	Radiation Protection Advisor
SCoR	The Society and College of Radiographers
SoR	The Society of Radiographers
SQU	Sultan Qaboos University
SQUH	Sultan Qaboos University Hospital (SQUH)
UK	The United Kingdom
US	Ultrasound
WHO	World Health Organization

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Abstract

Understanding the Professional Socialisation of Omani Radiographers

By Hasna Al-Maslahi

The structure of the health system in Oman has developed at a rapid pace, such that some facilities are now comparable with those of developed countries. Radiology departments have largely developed from small units to large ones, housed in modern and state-of-the-art departments with modern radiographic imaging modality services and up-to-date technologies. The radiography services in hospitals have expanded to include advanced imaging modalities such as Magnetic Imaging Resonances (MRI), Radionuclide Imaging (RNI), cardiovascular imaging, Radiotherapy, Cardiac CT, Oncology CT, Radiology Information system (RIS) and Picture Archiving Communication Systems (PACS). The delivery of the best quality of radiography services is hindered, however, by the MoH being the main agency in the health care system that issue regulations and policies. In addition, Omani radiographers function outside of any professional regulations. This study is therefore undertaken to explore the lived experience of the professional socialisation of Omani radiographers. Through exploring the radiographers' lived experience in constructing their professional identity, describing the process of constructing their professional role identity, and understanding how professional socialisation affects professional commitment. The study involved interviews with 19 radiographers and analysis of contextual material. The interviews were conducted face-to-face, in Arabic, using a phenomenological approach. The data from the translated transcripts were managed and coded using Nvivo 10 software. A thematic analysis approach was adopted to analyse the data. The analysis of the data revealed three main categories: Omani radiography practice in context, radiography culture and working life in Oman, and the professional identity of Omani radiographers. The outcomes of the study of the Omani radiographers' lived experience revealed ineffective systems and regulations, an absence of structures to guide and support radiographers in their professional development, a poorly

defined culture, and inconsistent leadership and management in radiography departments. In conclusion, the findings disclosed a complex and negative socialisation process that undermines Omani radiographers' attempts to be recognised as professionals.

Introduction

The Researcher

I am an Omani and grew up in Oman, graduating from the fourth cohort of the Diagnostic Radiography Diploma Programme in 1994, from the Institute of Health Sciences (IHS) of the Ministry of Health, Oman. I worked for two years in one of Oman's largest hospitals, which specialises in neurology, trauma and orthopaedic surgery. I was selected to be a student preceptor in the early stages of my career. I then moved to an academic position at the IHS where I had opportunities to develop as an academic. I first obtained a scholarship to study in the United Kingdom to obtain a Bachelor's degree in Diagnostic Radiography. During my studies, I had the opportunity to be trained in British hospitals and to learn about the work systems and regulations that govern radiography practice, in addition to interaction with healthcare professionals and patients. Returning to Oman after the BSc in 1999, I worked as a clinical tutor for a year, looking after radiography students in various hospitals in the country in addition to giving lectures. Then, I travelled again to the UK to obtain a Master's degree in diagnostic radiography (2002) and, three years later, I got a Master's degree in medical education in 2005. During my career, I gradually progressed from being a clinical radiographer to a clinical instructor, tutor and then to be the head of the radiography programme at the IHS.

The IHS is an educational health institution, under the remit of the MoH, which offers the only radiography programme in Oman. The programme started in 1986, offering a diploma qualification. The courses are taught in English and composed of theory, practical and clinical elements. In 2013, the IHS was approved by the Academic Accreditation Agency to start a radiography BSc programme.

In 2002, I collaborated with my colleagues to set up an association for Omani radiographers, which was then established officially in 2004. I was a member of the

board of the Oman Association of the Radiographers (OAR) until 2012, and had opportunities to chair the OAR in two consecutive rounds and to be the advisor of the OAR until 2015, when it was dissolved. I participated in representing the OAR in official meetings in the government sector and in organising seminars, workshops and conferences.

The drivers for this research are grounded in these professional experiences as a radiography student, a clinical radiographer and a professional educator. The breadth of my own professional experience, and my exposure to other radiography cultures throughout my professional studies, alerted me to the extensive variability in practices and standards amongst the radiography profession in Oman. This in turn led me to question 'why' and stimulated my desire to explore and understand the functioning of the profession in my home country.

Overview of the Thesis

This study was therefore designed to research the professional socialisation of Omani radiographers working in the MoH. Professional socialisation is referred to the process of acquiring the values, technology and language, and then internalising these to behaviour and self-concept in order to fit into the intended role, of a particular profession (Dinmohammadi et al., 2013; de Swardt et al., 2017). Since the human social sciences aim to explain the meaning of phenomena such as the lived experience, a phenomenological approach was used because of its ability to provide a reflection on the participants' lived experience and to gain insights into how they make sense of their experience (van Manen, 1997).

Chapter one provides contextual background on the healthcare system in Oman, and focuses on what is known about radiography services.

Chapter two examines the relevant literature on sociological theory, professional socialisation, professionalism and professional identity. It also describes the process by which healthcare professionals formulate their professional identities, with a discussion of the elements that affect that process. The major part of the literature review is focused on what constitutes professionalism, identifying the crucial factors affecting professional identity.

The third chapter of the thesis considers the theoretical basis of phenomenology and rationalises the use of the approach in this study, while explaining the reasons for excluding other methodological approaches. The chapter then describes the ethical approval procedures and considerations followed in respect of the research population and sampling procedures, pilot study and interview procedures. It also describes the main study design and procedures for data collection and management and the reflection on this data. The chapter ends by explaining the translation, transcribing and data analysis procedures applied in the study.

Chapters four, five and six present the results of the analysis of the data. The results are categorised into three main themes which emerged from analysis of participants' transcripts, the contextual material and field notes. The first results chapter offers a critical analysis and discussion of the current situation of radiography in Oman. It presents the findings of the analysis of the contextual materials, field notes, and the participants' interviews. Chapter five discusses the results in respect of the culture of radiography in Oman, while chapter six considers the findings regarding the professional identity of Omani radiographers.

Chapter seven integrates the discussion of the three preceding chapters to present an interpretation and synthesis of the research findings, and links the findings directly to the extant literature. The chapter also outlines the study limitations and considers the implications of the findings for radiography in Oman. It also draws conclusions and makes recommendations for the future based on the evidence uncovered in this thesis

Chapter One: Background to Radiography in Oman

The Sultanate of Oman lies in the south-eastern corner of the Arabian Peninsula, and covers a total area of approximately 309.5 thousand square kilometres. The land area is composed of varying topographic features: valleys and desert account for 82% of the land mass, mountains 15% and the coastal plain 3%. Oman has a population of approximately 4.645; 54.9% of whom are Omanis and 45.1% expatriates (The National Centre for Statistics and Information, 2017). The expatriates are mostly guest workers from India, Pakistan, Bangladesh, Morocco, Jordan and the Philippines. Approximately half of the population live in Muscat (the capital area of Oman) and the Batinah coastal plain northwest of the capital.

1.1. Healthcare System in Oman

The healthcare system in Oman has witnessed great development since 1970, when the Ministry of Health (MoH) was established in the era of the new government. The MoH constructed hospitals and health centres (HC) at national, regional, sub-regional and local levels. Healthcare services in Oman are also provided within other government hospitals/clinics, such as those belonging to the Sultan Qaboos University (SQU), the Ministry of Defence (MoD), the Royal Oman Police (ROP), and Petroleum Development Oman (PDO), in addition to a number of private hospitals and clinics. The MoH, however, remains the main agency responsible for the provision, coordination and surveillance of the health sector, and is generally responsible for ensuring the sector's progression and development. The MoH develops health policies and programmes and ensures their implementation in coordination with all related ministries, health services, and other institutions linked to the government, as well as those in the private sector. The Government finances and runs the health system (Ministry of Health, 2016).

The MoH makes primary medical care available through health centres, extended health centres, local hospitals and district (Wilayat) hospitals. The regional hospitals provide secondary medical care, while the national referral hospitals (four hospitals

at the national level which are all in Muscat) mostly provide tertiary medical care. Sultan Qaboos University Hospital (SQUH) is a non-MoH governmental hospital that offers tertiary health services.

The MoH has applied a decentralisation policy (Ministry of Health, 2016) through which health services are administered in ten regional health directorates set up by the Ministry (see figure 1.1). The MoH has established a planning framework, and has a policy in which all regional directorates of health services plan, implement, monitor and evaluate their own health services/programmes.



Figure 1.1: Administrative Regions and Governorates of the Sultanate of Oman (Ministry of Health, 2012a)

Table 1.1 Population Distribution in Health Governorates by mid-year 2016 (MoH, 2016)

Governorate	Population		Total
	Expatriate	Omani	
Muscat	929,583	512,039	1,441,622
Dhofar	230,481	204,471	434,952
Al Batinah North	251,940	475,208	727,148
Al Batinah South	111,547	289,420	400,967
Ash Sharqiyah South	103,576	195,467	299,043
Ash Sharqiyah North	97,798	167,712	265,510
Musandam	16,365	27,594	43,959
Al Buraymi	58,255	53,139	111,394
Ad Dakhliyah	108,718	333,030	441,748
Adh Dhahirah	57,769	146,629	204,398
Al Wusta	20,194	23,116	43,310
Total by mid-2016	1,986,226	2,427,825	4,414,051

As the regional headquarters have begun to take on increasing responsibility for managing the health services under the decentralised structure, the role of the national headquarters of the ministry has been in a state of transition. As this evolution continues, the roles of the national and regional headquarters will be re-defined periodically, with greater responsibility and authority being vested at the regional level (Ministry of Health, 2016). Every Regional Directorate General is responsible for developing the appropriate policy guidelines, operating procedures and manuals to be used by the regional directorates and local institutions.

The regional directorates are expected to support programme management in all their peripheral institutions through proper interpretation of national policies, guidelines, plans, manuals and other operating procedures. They are also expected to undertake routine monitoring of all programmes and services throughout the region and to take timely corrective action to ensure optimum results. The regional Directorate Generals (DG), meanwhile, are expected to provide appropriate feedback to the Undersecretary of Health Affairs. Relevant positive and negative feedback should also be given to the regional Health Superintendent's office (in the DGs) and the concerned peripheral institutions. All regions in Oman are expected to formulate plans of action based both on regional needs and national policies and

strategies to launch and sustain primary healthcare through the regional health system. A summary of the structure is provided in figure 1.2, below.

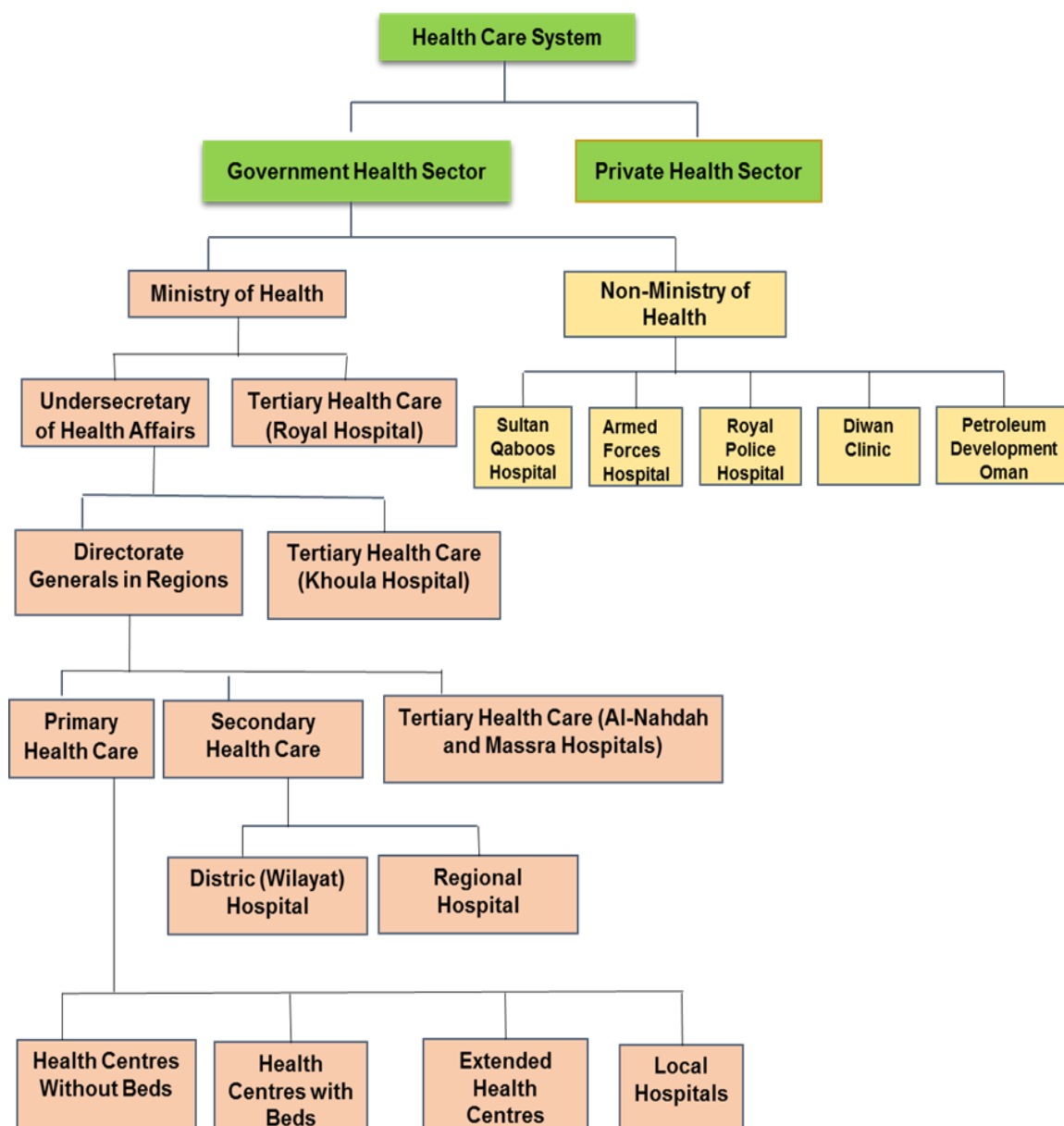


Figure 1.2: Organisational Chart of the Structure of the Health System in Oman

To ensure the highest quality of healthcare for all, and the efficient utilisation of resources, the MoH upgraded some health institutions in the regions, to be autonomous hospitals, effectively linking these through referral chains (World Health Organisation, 2006). This reduced the MoH's direct control of hospitals and shifted the day-to-day decision making from the government hierarchy to the hospital management team.

The MoH issued the basic policy guidelines for hospital autonomy in 2002. In summary, the management team was to have more flexibility to make decisions to improve hospitals' performance; and resources were freed up to allow the health system to re-direct its priorities towards primary care and those services that proved to be most cost-effective.

1.2. Radiography in Oman

Radiography in Oman was initiated through the efforts of the American mission (Director General of Education and Training, 2013). The mission trained a few Omanis as x-ray technicians, using mobile machines. From 1970, the MoH recruited qualified expatriates (mainly from India and the Philippines) as radiographers to manage and operate radiography departments. There were 64 radiographers working in the MoH in 1985 (Ministry of Health, 2016). By 2016, however, the MoH indicated in its annual report that 1070 radiographers were employed in the country; 72% of these were in MoH hospitals, 9.7% in governmental non-MoH, and 18.3% in the private sector. 65% of radiographers employed by the MoH are Omanis, the majority of whom are diploma holders who have graduated from the Institute of Health Sciences (IHS) in Oman, with a few who have obtained bachelor degrees or diploma certificates from various international universities. It is worth noting that the IHS is the only institution that offers a radiography programme in the country.

Radiographic services have developed to encompass different imaging modalities. These have gradually been installed in most hospitals and now include Computerised Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound (US) and Mammography. With the exception of the MRI, the installations started in Muscat and then moved to the other regions of the country. Additional services (such as catheterisation, angiography, Radionuclide imaging, Radiotherapy, Cardiac CT, Oncology CT and Pet CT) are only provided to the hospitals that offer these services to their patients.

Although the MoH has developed modern hospitals with sophisticated and up-to-date equipment, from the perspective of the researcher, the MoH has not been successful in some areas that have directly and indirectly affected the quality of healthcare services. As a result, there are some areas of weakness in the national radiography service, as evident in the next few paragraphs.

1.2.1. Employment and Licensing

The MoH follows two methods for employing healthcare manpower. First, to achieve Omanisation as a national strategy for self-reliance (Ghosh, 2009). The Omanisation policy pursues to reduce the country's dependence on expatriate manpower by substituting Omani nationals for foreign labour to achieve a sustainable local health workforce (Al Riyami et al., 2015). All health allied graduates from MoH health institutes are employed immediately after graduation in their own regions on the same financial grade, no matter what their graduation scores. This strategy guarantees that all students who are successful in completing their programme will be offered a job immediately after graduation. However, whilst there may be some student radiographers who want to achieve high scores for their own personal satisfaction, it is arguable that this strategy reduces students' motivation to compete with each other and to commit to their studies.

The other method of employment is licensing those who graduated from abroad by means of a National Licensing Authority for Health Professionals interview (Mohammed, 2001). All expatriates and Omanis who have graduated from

international universities and who have applied for recruitment will then be invited to be interviewed by the Licensing committee. If they are successful at interview they will be licensed to practice in Oman. Their financial grades will be decided by the committee and will be dependent on their performance in the interview, their qualifications and their experience (Ghosh, 2009a).

The Omani candidates are usually employed in their home regions, whereas non-Omanis will be allocated (on a contract basis) anywhere in the country based on needs. It is worth noting that once a candidate is employed or licensed to practice in Oman there is no relicensing system, no competency frameworks or any set of professional standards that they are required to maintain. Their professional status relies exclusively on the individual's integrity, how they were trained during their pre-registration education, and the institutional culture. Education provides the initial introduction to the profession through the acquisition of knowledge, values, attitudes and expectations (Cornelissen and van Wyk, 2007). Whereas institutional culture is the reality that shapes how individuals interact and behave (Schaubroeck et al., 2013). The goals, norms, values and practices in a particular environment formulate the culture of an institution (Leong and Crossman, 2015), and will therefore have an impact on the healthcare practices in Oman.

The expatriate contract is renewed according to service needs. Normally, there are guidelines to suspend or terminate contracts if performance is unacceptable to a departmental or hospital management (Mohammed, 2001). In the researcher's experience, in some cases, such termination does not take place; with the radiographer instead being transferred to another hospital/ region to cover the needs of that alternative department. If the performance of an Omani practitioner is not up to an acceptable standard, the Omani governmental system does not allow for the dismissal of an Omani from his/her job. The department, the hospital and the ministry are left to deal with the employee. In many cases, departments and hospitals are unable to manage such individuals.

1.2.2. Graduate Employment

By the end of the MoH's fifth 'Strategic Plan' (1991-1995), 116 health centres had been built to provide full comprehensive healthcare to the people of Oman (World Health Organization, 2006). These cover all aspects of healthcare: curative, preventive and promotive. The health centres are all designed to include an X-ray room, a small dark room, and a store. They are not, however, supported by Radiologist services. A good number of IHS graduates have been appointed to these HCs. Services began with single-handed radiographers, but today, there are two, or three, radiographers working in some HCs, depending on the work load.

Lennox et al. (2012) claimed that new nursing graduates usually need to work with preceptors or mentors for a period of time. This is applicable to any healthcare graduates including radiographers worldwide who undergo a transition phase from being student to become professional. It is also can be argued that Omani radiographers, in particular, need this kind of programmes in order to consolidate their professional and clinical skills and to gain the experience that will enable them to have the confidence and ability to work unaccompanied in the HCs and removed from the support of expertise of senior colleagues and radiologists. This also gives them an opportunity to learn about clinical protocols and policies, critical thinking, clinical judgment and to gain skills in communicating with doctors, allied health personnel and patients (Rush et al., 2013). Working alone in a HC requires management and administrative skills with which the majority of new graduates are not yet equipped. The absence of mentoring and succession plans was also noted in Omani nursing as the main constraints for novices learning their roles (Al Riyami et al., 2015). The lack of mentoring was reported by Al Riyami and his colleagues as the main reason for the widening experience gap between experts and graduate.

1.2.3. Job Descriptions and Job Structure

Although a policy is in place in the MoH (Ministry of Health, 2012c), official job descriptions for radiographers and other health allied practitioners have not yet been developed. Until 2014, the job structure in radiography was composed of only three levels; Radiographer, Senior Radiographer and Supervisor Radiographer.

Radiography departments in hospitals, polyclinics and HC do not have an official organisational structure. Ineffective career planning is an issue that concerns other professions in MoH. For example, Omani nurses were reported to be unsatisfied with their job as a result of a lack of career planning by Al-Haddabi (1996). The absence of job descriptions and ineffective job structure challenges practitioners in clarifying their roles in respect of these levels (Rejon and Watts, 2013). This is not necessarily an issue with junior radiographers, as they expect to work at this initial level. However, their challenges arise in getting appropriate support and defining their limitations. The lack of job descriptions is problematic in respect to seniors and supervisors, since there is no written definition and structure that defines their respective roles and competencies.

The experience of the author has revealed that there is a widely held assumption amongst radiographers that the supervisory grade is an administrative or a managerial position. In many cases, as soon as radiographers are promoted to a supervisory position, their focus becomes more administrative and managerial, and they move away from practical work. Al Riyami et al. (2015) related this to an Omani local preferring to work in administrative and managerial positions. This shift often results in leaving junior members with insufficient direct support and supervision, mainly in the general radiography areas where experts are required to ensure patient safety, and the optimisation of radiographic services. Due to the absence of defined managerial posts in professional departments in the MoH, radiography supervisors are often requested by hospitals to take responsibility for a department, alongside a medical lead.

In 2013 Omani newspapers reported an announcement of the development of new job structures in the MoH, supported by job descriptions and clear promotion systems (Oman News Agency, 2013), yet these job descriptions had still not materialised at the time of writing this thesis in 2017.

1.2.4. Leadership and Management

There are no recognised criteria for appointing radiographer in-charge/ managers, which means the position could be given to the most senior practitioner, a person nominated by a previous manager, one who held a bachelor's or a master's degree, or one who is preferred by the hospital management or Directorate General of Health Services (DGHS) in the region. This haphazard approach has the potential to cause conflict between managerial roles and supervisory roles. A dilemma related to there being no prerequisite to the role, is that a newly qualified graduate could take the role of the manager in a health centre. Managers are not supported by a system of role clarity guidelines, job descriptions, policies and regulations. The absence of an effective leadership and role models has an impact on the culture and therefore on the profession. Al Riyami et al. (2015) revealed that it made it difficult for new graduate nurses to develop the prerequisite attitudes, refined skills and abilities to gain the required competencies and confidence they require.

1.2.5. The Promotion System

The MoH, like most ministries in the country, follows the Ministry of Civil Services' regulations when promoting its staff. This system promotes each individual every four years from the time they join the service (Mohammed, 2001), regardless of their appraisal, and the promotion only affects their financial grade. A promotion of job title is only made following a recommendation from the hospital management or the Department of Staff Affairs in the MoH. This kind of system opens the possibility of creating apathy in employees because they are promoted every four years regardless their performance, attitudes and behaviours.

1.2.6. Legislation on the Use of Medical Radiation

The potential for exposure to medical radiation has increased in Oman since 1970, due to the rise in the number of hospitals with X-ray departments (Al-Lamki, 2011). Despite this increase in potential exposure, there has been no development in legislation on ionizing radiation. Even locally, hospitals do not enforce any rule system of their own. The lack of legislation is likely to risk of over exposure and risk of cancers to a population.

The author has observed some doctors may request x-rays based on patient demands (rather than their own diagnosis), and may ignore protocols which require the initial use of investigations that do not rely on ionizing radiation. Some radiographers may also hold patients, and allow helpers to hold patients, without wearing lead protective devices.

The MoH only hired the first Radiation Protection Advisor (RPA) in 1999. His main role is to certify radiological equipment after installation. Medical physics services are not provided in radiology departments; they are only allocated to oncology departments (Al Lamki, 2011). The recruitment of the RPA has not had an impact on practice, however, since regulations still do not exist. According to Al Lamki (2011), the MoH established a committee from different authorities to create legislation governing the use of ionizing radiation in medical contexts. As of the writing of this thesis, (2017), this committee has not yet issued a report.

1.2.7. Guidelines and Policies on Radiography Role Extensions

There are two extended roles for Omani radiographers. First, radiographers working in CT and MRI suites in tertiary hospitals are permitted to administer Intravenous injections (IV). Second, Obstetric Ultrasound is performed by radiographers in Muscat Polyclinics and HCs. In both cases, there are no policies in place to support radiographers in their new roles, or to clarify the type and duration of the training that they should receive, or their responsibilities and limitations.

1.2.8. The Annual Appraisal System

At the end of each year, all staff in the MoH and its institutions are appraised using a standard form designed by the Ministry of Civil Services (Mohammed, 2001). This form is applied for all professions: administrative, medical, technical and educational staff. It is vague in its design and does not address specific issues. From the experience of the author as an appraiser and appraisee, the system does not allow the employees to receive feedback or to be informed about the results of their appraisal. As a result, this appraisal system does not inform radiographers

about their strengths and weaknesses, and therefore does not encourage self-improvement or assist in providing staff with any guidance on their career choices.

1.2.9. Scholarships and Continuing Professional Development (CPD)

The MoH has included within its strategic plans a strategy to develop its human resources in order to supply a labour force and keep abreast of any developments in medical and healthcare services (Director General of Education and Training, 2013).

The Director General of Education and Training (DGET) annually dispatches groups of employees from different functional levels on scholarships, seminars and training courses, both locally and abroad. The scholarship scheme is supported by training, education and grants in the light of the objectives and priorities specified in the plans and programmes of the MoH (DGET, 2012). Radiography is granted six scholarships per year; four bachelor degrees and two master degrees. According to the DGET report (Ministry of Health, 2012b), in 2009 there were 13 radiographers studying at Bachelor level and four at Masters level. Although there are no statistics on the total number of graduates from all scholarships, there are a number of radiographers who return to their institutions after completing their studies abroad. All Omani radiographers are eligible to apply for scholarships under specific criteria. The criteria for diploma holder radiographers to apply for a Bachelor degree are a letter of recommendation from their workplace, a minimum of 80% in the annual appraisal scores for the last two years, a minimum of two years of experience in the field and a minimum of grade 'C' in the Diploma Certificate. It is very difficult to meet the criteria set for the Master's level scholarships, however. Besides having a minimum of two years working experience after their last qualification, and a recommendation from a hospital, the Masters programme should ensure a clinical placement. This last criterion is a drawback for radiographers because they often cannot find a programme that ensures clinical placements in US, Europe or Australia. As a result, some radiographers who want to obtain a Master's degree have to diversify to a different profession to guarantee a scholarship, e.g. medical physics.

To maintain the growth and development of all healthcare professionals, and to emphasise the importance of CPD, the MoH established the CPD department in the DGET. The CPD department organises national and international workshops, seminars and conferences, as well as providing a variety of professional training opportunities through both local and international specialists, as needed (DGET, 2013).

The CPD department has trained instructors for each health profession and encouraged them to be focal points and coordinators with Staff Development Department of their hospitals. A credit point system is adopted as a regulatory mechanism for its CPD programmes.

"However, there is no a uniform or standardised system of documentation for the provision of opportunities for CPDs for individual staff or how the credits and knowledge attained are utilised." (DGET, 2013; P: 83)

The Omani Association of Radiographers (OAR) has also conducted CPD activities to work in-line with the MoH objectives and to improve professional standards.

1.2.10. Postgraduate Careers

The concept of extending radiographers' roles began in the in the UK in the mid-1990s, with a view to enabling them to undertake tasks that were traditionally carried out by radiologists (Price and Le Masurier, 2007). There are radiography opportunities and limited scope for specialisation in Oman, however, especially for postgraduates. Opportunities lie in mammography, CT, cardiac CT, oncology CT, intervention radiology, MRI, Radionuclide Imaging (RNI), education and marketing (Medical equipment specialists in the private sector). Previously, these specialisms were served mainly by expatriates. With the numbers of Omanis with higher degrees, however, these specialties have started to be operated by Omanis, who also train their peers.

Mammography and CT are provided in most hospitals in Muscat (the capital of Oman) and regions. There are different levels of training found among those who are practising mammography and CT, ranging from in-house training, clinical attachment experience abroad, or Master's degree. The development in radiography specialisms and radiographers' career progressions in Oman is not supported by policies, guidelines and job descriptions, however, which raises concerns about standards of practice and the safety of the public. Policies, guidelines and job descriptions shape practitioners' behaviours and are in place to guide them to the required set of standards. For that reason, professions are regulated by professional bodies to ensure the safety of the society, e.g. the Health and Care Professions Council (HCPC) in the UK (HCPC, 2015), and the Health Workforce Planning and Regulatory Affairs Division in Canada regulate radiography and other health professions in their countries (Ministry of Health and long-Term Care, 2017).

1.3. The Omani Association of Radiographers

The OAR was a professional non-government organisation whose members were radiographers in Oman working in both governmental and private sectors. The OAR was a voluntary, non-profit and official organisation established in July 2004 mainly by the Omani radiography faculty. It was registered in the non-government Associations Register of the Ministry of Social Development under the Ministerial Decree No. 109/2004. It used the IHS as its temporary location. As stated in its constitution, the OAR was established with the following objectives:

- 1. Development of thought and promotion of awareness in the society in the field of diagnostic and therapeutic radiography.*
- 2. Facilitation and encouragement of scientific reciprocation in radiography through organizing scientific and practical meetings and seminars for the members.*
- 3. Encouraging and performing scientific studies and giving advice in the radiography of diagnostic and therapeutic radiography.*

4. *Publication of non-periodic leaflets or magazines for the publication of research and studies relevant to the operations of the association.*
5. *Organizing and conduct scientific meetings, workshops, seminars, and conferences.* (OAR, P:2)

During the eleven years of its existence, the OAR focused on identifying itself to stakeholders through presentations and conducting scientific meetings to attract more members. The association struggled to attract members and to be accepted by some senior members of the profession. Possible reasons for this were the lack of clarity about the role of the association both to the board members and professional members, and the fact that the OAR was founded by junior radiography faculty members.

The OAR, however, succeeded in its aim of organising accredited national conferences and achieved approval for the MoH to assign radiation protection officers in each hospital in the country. In the last few years before being dissolved, its ability to influence and represent the profession in Oman suffered on account of some of its board members travelling for studies outside the country, while others were preoccupied with their main jobs and/ or reluctant to take on the running of the Association. This led the Ministry of Social Development to issue a ministerial decree to close the OAR in September 2015. The researcher consider this ministerial decision to deprive radiographers of collective professional power and could ultimately result in exploitation of professionals and the profession. It leaves the radiographers without a body to represent them and deal with their professional and practical issues, which opens the possibility of the imposition of new tasks far from radiography practice, especially in the absence of professional regulations, guidelines and job descriptions.

Summary

In summary, radiography in Oman is a very young profession that was originally initiated by the American mission and, since the 1970s, has been practised in MoH hospitals. From the late 1980s, Omani radiographers joined the healthcare

workforce in the MoH institutions. The numerous political and professional issues related to radiography practice in Oman, which raise concerns about professional practice, professional identity and patient safety. In this context the study being reported here was designed to explore how these various issues impact on the identities and professional socialisation of Omani radiographers. i.e. how Omani radiographers acquire the values, behaviours and attitudes of a radiography professional, and how they internalise these to manifest behaviour and self-concept in order to fit into their intended roles.

Chapter Two: Literature Review

This chapter provides a review of literature on professional socialisation in the healthcare professions and offers insights into the impact of professions on their members. The researcher used the resources at The University of Liverpool to search for and access relevant literature.

The scientific databases Discover, PubMed, Medline and Google scholar were used to search for relevant literature. As well as indexing thousands of journal titles in sociology, psychology, medicine and health, these databases provide full text access to the recovered articles and studies. A number of search terms were used to identify relevant articles: professional socialisation, organisational socialisation, construction of professional identity, profession, professionalisation, professionalism, institutionalisation and organisational culture. The inclusion criteria considered any articles from sociology, psychology, medicine, radiography and healthcare professions resulting from searches using the identified terms. Literature outside those fields and written in languages other than English were excluded from the literature review. Both recent and historical literature was appraised.

2.1. The Literature Review Strategy

At the start of the literature review, the researcher focused on exploring articles discussing socialisation theory, organisational and professional socialisation processes, and their outcomes in the healthcare arena. The search then moved on to include healthcare literature on professions, professionalisation and professionalism. Numerous studies from different healthcare disciplines were collected and examined according to the titles and abstracts, and when deemed relevant, the complete article was retrieved. The content of relevant articles was critically reviewed.

2.2. Socialisation Theory

Socialisation is a periodic process that continues throughout an individual's life (Page, 2005). It is a process that starts when an individual enters a new social structure and involves the acquisition of the knowledge, skills and disposition needed to be an integral part of the chosen society (Hall, 1987). The socialisation process is referred to as:

“... the process during which people learn the roles, statuses, and values necessary for participation in social institutions” (Dinmohammadi et al., 2013 P: 26).

Psychology and sociology scholars interpret the concept of socialisation as a status in which an individual accommodates the norms and values of a particular cultural group (Ryynänen, 2001). van Maanen and Schein (1977) see socialisation as the process by which newcomers are taught and learn, making learning the centre of the socialisation process (Anakwe and Greenhaus, 1999; Ashforth et al., 2007; Saks and Gruman, 2011). It is, therefore, the process of learning the orientations, resources and behaviours (Bazerman, 1994) that facilitate the transition of new members from outside to inside the society. The process results in assimilation and reproduction of individual active social experience in the new setting. Through it, the novice learns the language, values, norms, attitudes and behaviour patterns, specific to that setting, and produces new social networks (Basova, 2012). Anakwe and Greenhaus (1999) describe four categories of learning that take place as part of the socialisation process, referring to them as socialisation content. They are organisational goals, values and culture; workgroup values, norms and relationships; the necessary skills, how to do the job and how to apply knowledge, and personal identity, self-conceptualisation and motives. It has been suggested that healthcare graduates undergo two socialisation processes; organisational and professional (Page, 2005).

2.3. Organisational Socialisation

Organisational socialisation is the process by which newcomers learn their organisational roles and acquire the social knowledge and skills that formulate their identity (van Maanen and Schein, 1977; Anakwe and Greenhaus, 1999; Åkesson and Skållén, 2011). It is continuous and takes place to any and all routes undergone by its members while they are in the organisation. Leong and Crossman (2015) pointed out that the term organisational identity is not consistently theorised or defined in the literature; they referred to it as a specific form of social identification that is shared by its members and emphasised in formal mission, vision, and value statements and logos. Professionals often experience mild to severe adjustments during their series of transitions from one role to another, which vary across roles (van Maanen and Schein, 1977).

Organisational socialisation has an impact on the work environment, which in turn influences commitment, job satisfaction and ultimately the members' intention to stay or to leave (Nikic et al., 2008; Leong and Crossman, 2015). Professionals become able to integrate and contribute to organisational objectives when they experience positive socialisation and are able to meet their own expectations. Thus, socialisation holds together the various interlocking parts of an on-going social concern, maintaining it and ensuring its stability over time, such as its mission, values, performance and environment (van Maanen and Schein, 1977). Organisations should put in place measures to ensure that their members' needs are fulfilled, such as effective mentorship, preceptorship and role modelling. Studies have demonstrated that these strategies facilitate early integration, in addition to offering potential benefits in respect to quality of work, engagement of newcomers, and retention and satisfaction of practitioners (Rejon and Watts, 2013). Besides, loyalty to an organisation (or to a profession) tends to follow when personal identity and organisational identification are compatible. When this is not the case, and professionals are unable to 'fit in', they may leave (Leong and Crossman, 2015). Based upon this, there are two important conditions of socialisation in an organisation: structural and cultural (Saks and Gruman, 2011; Lai and Pek, 2012).

For structural conditions, roles are settled by rules such as job descriptions, organisations'/ institutions' policies, and professional standards. The primary focus of socialisation is to provide people with accurate information to facilitate their transition and adjustment (Saks and Gruman, 2011). Novices rely on the availability and clarity of the information in place to guide their behaviours (Saks and Gruman, 2011; Lai and Pek, 2012; Strouse and Nickerson, 2016). Organisational socialisation is also described as a 'sense-making' process in which newcomers make sense of the culture they have entered. It involves cognitive processes that novices need to employ as a means of coping with surprise and novelty. They interpret the observations and experiences and meanings through interactions with other members, comparing them and deciding how to alter their own values and behaviour. Thus, organisations should provide members with a set of information to guide them to expected attitudes and behaviours (Ashforth et al., 2007). van Maanen and Schein (1977) developed a theoretical model of organisational socialisation that illustrates six tactical dimensions, describing how these influence newcomers' role orientation. They defined socialisation tactics as:

"... the ways in which the experiences of individuals in transition from one role to another are structured for them by others in the organization" (p. 230).

Overall, the availability and clarity of information, work to clarify expectations, reduce uncertainty and improve self-conception and confidence that facilitate positive socialisation (Anakwe and Greenhaus, 1999; Ashforth et al., 2007; Kramer et al., 2013; Saks and Gruman, 2011).

In respect to the cultural conditions for socialisation, it is clear that socialisation does not occur in a social vacuum, but that information must be shared and communicated by all members of the organisation within the framework provided by the organisational culture (Anakwe and Greenhaus, 1999; van Maanen and Schein, 1977). Moreover, in organisational socialisation processes, it is important to recognise that all aspects of culture that are passed to new members are

necessarily useful (van Maanen and Schein, 1977). In addition, novices often start their career in their organisation with a sense of uncertainty and vulnerability (Schaubroeck et al., 2013). As they engage with the organisation novices gain insights into its culture, which guides their experience, how knowledge is used, shapes personal relationships in the workplace and provides the ground rules for everyday conduct. Once developed, this cultural knowledge provides a person with the attitude that governs the typical features of everyday life (van Maanen and Schein, 1977). Leong and Crossman (2015) argue that organisational culture influences work environment and how the members think and behave, and when there are issues in the culture and the values are not shared, there will be high attrition rates. Indeed, if there is conflict between behaviours and values of the members of the same group it will lead to clashes in the group and likely job dissatisfaction, and may cause some staff to move out of the organisation. In Oman, and in the absence of professional regulation, standards, mentors and job descriptions, it is unclear what shapes radiography culture, values and attitudes and how the Omani novice radiographer's uncertainty is managed.

2.4. Professional Socialisation

Professional socialisation theory originated in sociology and is based on role theory, which emphasises preparing the novice for the intended role (Lai and Pek, 2012). The professional socialisation process is explained in three phases: graduation and separation from professional academia, a transition to becoming a full status professional, and identity construction and integration into the role and communities. Each phase has its own goals, activities, expected role performances, challenges and dilemmas for aspiring newcomers (van Maanen and Schein, 1977; Jaye et al., 2005; Kramer et al., 2013). For example, the academic phase focuses on knowing, the transition phase aims to guide practice in real-life settings, and affirming professional identity and integrating into professional roles is the subject of the integration stage (Jaye et al., 2005; Kramer et al., 2013; Lai and Pek, 2012). Various professions have designed different programmes to assist their newcomers

in their socialisation processes, such as orientation, preceptorship and mentorship programmes (Kramer et al., 2013) and internship programmes (Halfer, 2007).

Much of the literature defines professional socialisation as the process of acquiring professional values, technology and language, and then internalising these to behaviour and self-concept in order to fit into the intended role, which is visible in how the professional performs their daily activities (Bazerman, 1994; Lai and Pek, 2012; Dinmohammadi et al., 2013; de Swardt et al., 2017). Professional socialisation is interpreted as specifically organised experience for novice practitioners to achieve integration status (Basova, 2012; Lai and Pek, 2012). In the literature review conducted by Lai and Pek (2012), professional socialisation was described as a process of transmission of values, norms and perceptions that are unique to the profession, as well as being an outcome that ends with the formation of a professional identity and self-view as a member of that profession with the requisite knowledge and responsibilities. For this reason, some authors explain professional socialisation in three stages: pre-registration, transition into a professional; and identity formation and integration. From the psychological and sociological perspectives, however, professional socialisation is explained as a continuum which starts from the time a novice commences their training and continues to the time they leave the practice (van Maanen and Schein, 1977). Although the pre-registration stage provides the anticipatory professional socialisation into a profession (Cornelissen and van Wyk, 2007), the current study focuses on reviewing the literature on transition into a profession, identity construction and integration, to link the finding with the radiography context in Oman.

2.4.1. Professional Socialisation: Internalisation and Integration

The goal of professional socialisation is to internalise the values, customs, obligations and responsibilities of a new role and to support an individual's self-conceptualisation as a professional (Tradewell, 1996; Weidman & Stein, 2003; Mooney, 2007; Lai and Pek, 2012; Dinmohammadi et al., 2013) whereby a novice

practitioner starts to demonstrate the image, attributes and behaviour of their profession. It is the subconscious and inevitable consequence of entry into any profession (Tradewell, 1996; Weidman & Stein, 2003; Mooney, 2007). It is in place to reduce the tension that is associated with entering an unfamiliar situation and to facilitate adaptation during the transition process (van Maanen and Schein, 1977; Lai and Pek, 2012). It is also the process by which the novice experiences and learns the professional culture of the workplace (Neiterman and Bourgeault, 2015). The goal of the transition stage is inspiring professional activities and responsibilities under the supervision of a mentor or preceptor (Kramer et al., 2013). These experiences are dependent on the interaction between the novice practitioner and experts in the workplace (ibid).

According to 'situated learning' theory, learning is embedded within activity, context and culture (Lave and Wenger, 1991). In other words, a newly qualified practitioner learns the norms and values of a new environment through social interaction and collaboration with established members. Unintentionally, the novice practitioner starts to acquire certain beliefs and behaviours through imitation of experts and guided practice. Here, the novice practitioner is viewed as a cognitive apprentice, as explained by Kramer and colleagues (2013). Gradually, the novice moves from being an outsider to a central member of the professional community and becomes more active and engaged within the culture, eventually assuming the role of an expert (Lave and Wenger, 1991). To master the professional role, the learning should take place in a cooperative and authentic activity, i.e. the novice makes efforts to learn the new role and experts provide the required support to guide them. This stage is therefore a dependent experience (Kramer et al., 2013). i.e. novices depend on the experts to learn and clarify their expected roles by asking questions, shadowing and observing them.

The process affects professional development in the transitional process as novices evolve to committed professionals (Cornelissen and van Wyk, 2007). It is characterised by authors such as Ochs (1993), Waugaman and Lohrer (2000) and Price (2009) as being a dynamic, interactive and ongoing social process between

experienced and novice participants and consequently as involving progression. Weis and Schank, (2002) suggested that professional socialisation runs alongside professional development throughout the professional life of a practitioner. Both processes are ongoing and are considered part of lifelong learning. While professional development emphasises the two components of learning domains (cognitive and psychomotor), professional socialisation involves the development of the affective domain since it leads to change in attitudes and behaviours (Howkins and Ewens, 1999).

Much of the reviewed literature reports this process as being complex. The complexity involves the internalisation of the values and norms of the professional group into the person's own behaviour and self-concept (Cornelissen and van Wyk, 2007), thus leading to a reconstruction of the personality structure to fit the professional role (Dinmohammadi et al., 2013). van Maanen and Schein (1977) emphasised that the learning has to take place in the 'interaction zone' to learn the clues on how to proceed. As newly graduated professionals join the workforce, their feelings are often associated with loneliness, isolation and performance anxieties (ibid). They may also feel a lack of confidence with the various activities observed to be going on about them. Also, they are likely to be sensitive to the responses of others. This psychological tension is typically induced when a person is assuming new duties. To reduce such anxiety, the novices start to learn the social situation of the workplace environment with its culture and routines for handling interaction (van Maanen and Schein, 1977; Saks and Gruman, 2011; Naylor et al., 2016). In the case of failure of the interaction process, the novices lose important sources of support and guidance from their senior colleagues. They will struggle to learn their roles and culture. They will also struggle to effectively establish their roles as part of the group as they are still left to handle their own anxiety and uncertainty, which prolongs their transition.

The sociology and health sciences literature, however, explains two processes that help novices learn their roles; Interaction and involvement (van Maanen and Schein, 1977; Page, 2005; Lai and Pek, 2012; Leong and Crossman, 2015). The interaction

process is an important element in the success of socialisation (Waterhouse et al., 2014). The interaction with the immediately surrounding professional members, such as leaders, colleagues, and other relevant personnel who support, guide and promote learning. Also, pairing newcomers with an expert professional in a mentorship and preceptorship relationship facilitates the acquisition of experience, and assists in clarifying role expectations and decreasing conflicts. Mentorship and preceptorship are crucial in the newcomers' development and professional improvement (Kramer et al., 2013). Kramer and colleagues (2013) affirmed that mentors should stress:

"... the importance and necessity of integrating teaching, leadership skills, and evidence-based management practice in resolving dilemmas and reflective practice issues" (P: 487).

Effective practical contact with experts offers newcomers the opportunity to learn different experiences that lead to integration and professional development. The involvement facilitates learning by role playing, identification, modelling, instruction, observation, trial and error, and role negotiation. The involvement helps

"... to interpret the events one experiences such that one can eventually take action in one's altered situation. Ultimately, they provide the individual with a sense of accomplishment and competence (or failure and incompetence)" (van Maanen and Schein, 1977, P: 9).

A study conducted by Waterhouse et al. (2014) employed a longitudinal mixed method design, using both surveys and individual interviews revealed that healthcare professional graduates learn to cope with and accept the professional culture more quickly. We can have confidence in their finding as the authors tracked the change through multiple waves of data collection over a year; a baseline measure between commencement and three months of the graduate the programme, a mid-point measure taken between four and eight months of the

graduate programme, and a final measure was taken between 10 and 12 months of the graduate programme. Eventually, positive interactions and involvement facilitate graduates' integration (Goldenberg and Iwasiw, 1993; Lai and Pek, 2012; Waterhouse et al., 2014). The pre-set values and skills from professional training programmes are eventually replaced with the values and practices of the professional culture and will subsequently result in a change in behaviour. When the newcomers reach the turning point of making sense of self-concept and of inner reality to view oneself as an authentic member of the professional group then the integration prerequisite has been met (Cook et al., 1996; Aston and Molassiotis, 2003; Lai and Pek 2012; Neiterman and Bourgeault, 2015).

The process of transition to a professional is described as strenuous and a reality shock (Bartlett et al., 2009; Kramer et al., 2013; Bisholt, 2012; Lai and Lim, 2012; Leong and Crossman, 2015). Reality shock here means the fears and difficulties in adapting to the work setting, accompanied by uncertainty (Kramer et al., 2013). It has been suggested that this results from a theory-practice gap; a conflict between a new graduate's knowledge and skills acquired in the educational programme and the reality of the competencies required in the actual workplace (Lai and Lim, 2012). Active graduates, who participate during the transition process, are able to reduce the conflict and psychological tension and facilitate adaptation and self-concept (Ewens, 2003; Leong and Crossman, 2015). The transition process involves some personal adjustment (Leong and Crossman, 2015), and some graduates may 'drop out' as a result of this reality shock and difficulties coping effectively with the demands of the new role (ibid).

2.4.2. Outcomes of Professional Socialisation

Cooper-Thomas et al. (2004) indicated three change mechanisms in the initial period of socialisation. First, when values presented in the new environment are different to the values of the newcomers, they tend to reflect on their own values and they may eventually adapt them after some time. Second, the experience of socialisation in an institution changes newcomers' initial perception of values. Third, the institutions'/ organisations' values change over time as a result of internal or

external factors. Based on the author's experience, some Omani graduates have changed their values and adopted the values of their workplace. It is very difficult to comment on the other change mechanisms as there has been no empirical evidence to support this.

Achieving identity and commitment to a profession and the ability to cope with becoming a professional is determined by positive and negative aspects of socialisation and the anticipated values, skills and behaviours newcomers learned from professional programmes and in the clinical environment. Thus, the desired outcomes of professional socialisation are learning to cope in the real professional context, construction of a professional identity, commitment to the profession and organisation, and contributing to improve the quality of care (Mackintosh, 2006; Dinmohammadi et al., 2013; Rejon and Watts, 2013; Leong and Crossman, 2015).

Some newcomers achieve the goal of professional socialisation and thereby gain self-concept and develop a professional identity (Lai and Pek, 2012). This outcome is accomplished through positive socialisation: positive relationships and effective communications (Kramer et al., 2013; Lai and Pek, 2012; Waterhouse et al., 2014), a structured socialisation process and the availability of supportive information on the role and guidance on behaviours that work to reduce the uncertainty that is associated with early work experiences (Saks and Gruman, 2011). Role modelling, and effective mentorship and preceptorship promote positive socialisation and fitness to practice by reducing the theory-practice gap (Goldenberg and Iwasiw, 1993; Farnell and Dawson, 2006; Kramer et al., 2013; Lai and Pek, 2012). Teamwork is also significant in supporting positive socialisation, both in terms of feeling part of a team and subsequently in working effectively as a team member, and this helps to promote the quality of healthcare (Rejon and Watts, 2013). Nikic et al. (2008) found in their study that teamwork and support in the workplace have a great impact on the job satisfaction of healthcare workers and on the quality of healthcare services. Farnell and Dawson (2006) emphasised the importance of feedback, and re-visiting newcomers' skills, to ensure their fitness in the new environments. Consequently, positive socialisation contributes to learning and professional development. It is

unclear how transition and uncertainty are managed in Omani radiographers' in the lack of structures and documents to guide them.

Anakwe and Greenhaus (1999) identified five indicators of effective socialisation. First, mastering of the task, when the novice professional masters their role and gains self-confidence with a degree of job satisfaction. Second, functioning within the professional group by demonstrating professional commitment, adjustment to the group culture, respect for peers and superiors, feeling liked and trusted and understanding the norms and values. Third, knowledge and acceptance of the profession's/ institution's culture, which is reflected by the novice's familiarisation, understanding and internalisation of the profession's/ institution's culture. Fourth, achieving self-concept by learning and understanding themselves and how they can function in their institutions. Lastly, the role clarity is met when the scope of the role, its responsibilities and expectations are met.

Professional status is correlated with job satisfaction, which is understood to be the degree to which employees' like or dislike their jobs (Gronroos and Pajukari, 2009). The extent of job satisfaction depends on the nature of work, the work environment and one's expectations (Nikic et al., 2008; Gronroos and Pajukari, 2009). Although the study conducted by Gronroos and Pajukari (2009) was not carried out to investigate job satisfaction as an outcome of professional socialisation in the radiology professional, it highlighted the predictors of job satisfaction. Gronroos and Pajukari found that the best predictors for job satisfaction were work control and goal commitment. Job satisfaction was rated higher in work control by the radiology professionals who were in a senior position. Gronroos and Pajukari (2009) suggested that resources were the second-best predictor of job satisfaction. Lack of resources was seen as the cause of stress and burnout. In an interpretive study of three radiotherapy centres in the UK, Probst and Griffiths (2009) revealed three main factors influence radiotherapists' job satisfaction: job design, leadership and organisational governance and stress or burnout. Job design affects job satisfaction on mentally challenging, monotonous and repetitive tasks, the degree of autonomy, opportunity for career development, a lack of perceived time for CPD activities, and

opportunities for personal development. Leadership and organisational governance impact satisfaction on issues including control of work experience, involvement in decision-making processes, communication streams, support by immediate managers, leadership and transparency in the execution of policies, equality in promotion and CPD opportunities, and managerial style or leadership ability. Whereas stress or burnout was mostly related to heavy workloads and the lack of appropriate support which increase the risk of making an error.

Leong and Crossman (2015) emphasised that orientation and preceptoring programmes communicate the expectations of the organisation and clarify where the novices fit into it, that facilitate settlement in the job and job satisfaction. They offer information about the organisational mission, goals and values, its structure and various human resource management policies. They are accompanied by an induction programme facilitated by an expert professional where progresses are monitored through supervision and competency assessments. The work environment (Dingley and Yoder, 2013) and organisational culture (Andrews et al., 2003) also known to influence commitment, job satisfaction and ultimately the intention to stay. They guide the professional thinking and behaviour. The resources, work environment, and culture essentially constituted assumptions and expectations.

Other healthcare literature has reported the significance of the functional environment and the clarity of the job description for job satisfaction. The job description offers guidance and clarity as to the professional role and empowers the worker (Gronroos and Pajukari, 2009; Rejon and Watts, 2013). The literature also links job satisfaction with practitioners' self-awareness, self-control and self-regulation, each of which affect interaction, job performance and service outcomes (Mackay et al., 2012; Zeidner et al., 2012).

The professional socialisation process also promotes thinking and contributes to professional self-development since positive socialisation influences the novices' long-term success and their career (Saks and Gruman, 2011; Lai and Pek, 2012). Effective socialisation promotes individuals' self-concept by learning their strengths and limitations (Anakwe and Greenhaus, 1999) which are the key to the selection of

desired of areas of specialisation. For example, Rejon and Watts (2013) emphasised that positive socialisation is supported by mentorship, which is important in facilitating both formal and informal learning, and in managing the difficulties associated with a new environment. Socialisation can also boost self-esteem and help socialise into the professional role through the development of circles of supportive peers and leadership. As a result, novices learn, and may assimilate, leadership attributes by observing those displayed by mentors. Furthermore, effective and structured orientation programmes, and effective interaction with peers and superiors, provide newcomers with opportunities to experience different fields in the profession and observe experts' practice and behaviours (Goldenberg and Iwasiw, 1993; Farnell and Dawson, 2006; Kramer et al., 2013). Thus, some newcomers may choose to develop their professional skills in the areas they prefer in radiography, like Ultrasound, Mammography CT or MRI (Gronroos and Pajukari, 2009), or to deviate from clinical settings to other associated professional areas such as education, research, quality assurance or environmental safety (Gronroos and Pajukari, 2009; Lai and Pek, 2012).

Finally, newcomers also socialise by default in the absence of guiding information, structure, process and professional and institutional tactics (Saks and Gruman, 2011), although this prolongs the socialisation process because they are left alone to manage their uncertainty. van Maanen and Schein (1977) referred to this as individualised socialisation. Individualised socialisation is characterised by individual, informal, random, variable, disjunctive and divesting tactics. It may demotivate newcomers and lead to what is called negative socialisation (Waterhouse et al., 2014). Attempting to cope with the real world of practice, while internalising professional values, challenges newcomers to adapt to the professional culture. Thus, some newcomers may acquire some negative attitudes, including being dissatisfied with the salary and working hours. Several factors contribute to undesired outcomes of professional socialisation. The undesired consequences of negative socialisation include frequent turnover, a continuance of ritualised practice and bureaucratic views, role ambiguities, lack of critical thinking, repeated dismissal

requests, increased attrition, and gradual desensitisation about patients' humanistic needs (Rejon and Watts, 2013).

2.4.3. Professional Socialisation as a Continuous Process

In the healthcare context, professional socialisation is a lifelong process which begins upon entry into a professional training programme and continues throughout the years of professional practice (Weis and Schank, 2002; Lai and Pek, 2012). Throughout their professional life, professionals develop their experiences, commitments, responsibilities, relationships, rewards, demands, and potential (van Maanen and Schein, 1977). During professional training programmes, graduates develop professional knowledge, skills, values and behaviours of the profession (Mackintosh, 2006; Leong and Crossman, 2015). These knowledge, skills, values and behaviours are reconstructed during the transition from being students to full status professionals (Kramer et al., 2013). Resocialisation is the general and culturally-specific adjustment made to the professional work approach and professional identity in the process of professional integration into the new role (Neiterman and Bourgeault, 2015). It is ubiquitous, persistent and forever problematic.

Furthermore, the development of professional values continues along a continuum throughout the years of practice (Lai and Pek, 2012). Evidence shows that resocialisation and adaptation occur when settings, role performance, systems and technology change (Nimmo and Holland, 1999; Farnell and Dawson, 2006; Neiterman and Bourgeault, 2015). For example, when a general registered nurse moves to become a critical care nurse (Farnell and Dawson, 2006) and radiographers move into reporting medical images (Snaith et al., 2015). The transition from the familiar to the less familiar involves different levels of anxiety (van Maanen and Schein, 1977). Developments in technology result in re-socialisation because it imposes changes in practices. Technology in radiography is continuously evolved which makes the practitioners learn new competencies to keep pace with developments. The case is the same in Oman where radiography departments are equipped with up to date technologies. In a Canadian study of the

professional socialisation process of internationally educated healthcare professionals (IEHPs) (Neiterman and Bourgeault, 2015), the findings revealed that, to adjust to the local culture of practice, IEHPs had to learn the new professional landscape simultaneously with learning the cultural norms of the host country. Cultural shock was also experienced by IEHPs as a result of transitioning to a new healthcare culture as a result of different systems and policies from those they are used to. These findings can be linked to foreign practitioners moving to any new professional culture, e.g. expatriate radiographers in Oman. Austin and his team (2007) describe culture shock as the negative experience of moving from a familiar culture to another. The IEHPs had to learn the local practice and protocols, the authority dynamic hierarchies, and the management of treatment. Based on the literature, and the findings of their study, Neiterman and Bourgeault (2015) revealed that the process of the adoption and formation of new identity does not erase the old identity completely, but rather modifies and adjusts it to fit the expectations of the new culture. Indeed, it necessitates learning and unlearning of certain aspects of identity. In Oman, expatriate radiographers are employed based on their competencies and experiences from their home/ other countries. Moving to work in Oman, the expatriate experience changes in systems, policies and cultural changes which may cause culture shock.

2.5. The Professional Socialisation Process in the Radiography Profession

There is very little literature on the process of professional socialisation in radiography. Naylor et al. (2016), however, explored the expectations and experiences of newly qualified diagnostic radiographers in one UK higher education institution during their transition into full status practitioners. Their findings from a longitudinal study using interpretative phenomenological analysis methodology indicated that effective clinical placements during professional programmes eased transition and reduced the reality shock experienced by newly qualified radiographers. Radiographers were found to be tired and busy as a result of imaging departments being understaffed or the increased demand for imaging and

radiography. Naylor et al. also suggested that it is dependent on newly qualified radiographers themselves to reduce their cognitive load by developing coping strategies and routinised behaviour to help them to progress quickly from deliberative modes of cognition to instant reflex modes. The findings of the study also revealed that the level of stress inherent in starting work as a professional was alleviated due to working in a familiar environment, and the timescale for full competency following qualification was thus shortened. This was attributed to radiographer students spending a good proportion of their time in these hospitals as part of their clinical placement experiences. Interaction with co-workers was found to be important, however, in gaining knowledge of the social hierarchy and for the newcomer to fit into the professional group. On graduation, newly qualified radiographers were found to have some sense of professional identity, and that this developed further over time. They started their career with a degree of uncertainty and lacked confidence. Eventually, after a year of employment, they developed confidence and were able to interact with other professionals, which impacted on their professional identity. Naylor and her colleagues (2016) concluded that professional identity is a relationship between professional and personal aspects of life, which is dynamic and changeable. The literature review did not reveal any studies on radiographer transition in other countries including Oman. Although the findings of Naylor et al. represent the population of their studies, their research substantiates the points they made as many healthcare literature reported similar results; culture shock was revealed in nursing by Duchscher (2008) and Lai and Lim (2012) and in Canadian physical therapy students by Bartlett et al. (2009). Leong and Crossman's (2015) study reported the impact of clinical placement in facilitating the transition process of Australian nurses. Whereas Brien (2012) revealed strategies for nursing novices employ to cope with their transition.

2.5.1. Professional Status

For a practitioner to achieve a professional status they must first be a member in an occupation that is regarded as a profession (Joynes, 2014). The literature review did not lead to an agreed definition of a 'profession' and Moore (1970), and later Joynes (2014), argued that the concept of the profession is historically specific and has long been criticised as an uncritical reproduction of the knowledge of those attempting

to define it. The definition of a profession is debatable in the sociological (Talcott Parsons, 1939; Sciulli, 2010) and healthcare literature (Sparkes, 2002; Joynes, 2014). The sociological studies offer an understanding of the formal and informal organisation of practices in different professions. For example, through a study of the history of obstetric ultrasound, the imminent feminisation of the discipline can be anticipated (Decker and Iphofen, 2005). In contemporary sociology, professions and occupations are regarded as similar social forms that share many common characteristics since the differences between professions and occupations are differences of degree rather than kind (Evetts, 2006). Evetts (2006) claimed, however, that Hughes (1897 – 1983) was the first sociologist to argue that the differences between professions and occupations were differences of degree in terms of the ways in which professions and occupations present themselves to society and the ways of thinking about problems that fall into their domain. His argument motivated ethnographic researchers to study professional socialisation in workplaces and the development and maintenance by workers of shared professional identities. The shared professional identity which is produced and reproduced through professional socialisation result from shared educational backgrounds, experiences, a membership of professional associations and a work culture. It is associated with the sense of common experiences, understandings and expertise, shared ways of thinking and solving problems (Evetts, 2006). In these ways, a practitioner internalises the normative value of the work environment, and learns how to behave, respond and advise. Thus, this system is reproduced whenever a newcomer joins the workplace.

The quality of what constitutes professionalism is not constant or clear. Moore (1970) argues that the difference between a true professional and a quasi-professional is that the former deals with a specific client and that the welfare of the client dictates the quality and competence of the delivered service.

For an occupation to be recognised as a profession, it has to work towards a set of attributes that defines a profession (Sim and Radloff, 2009). There is general agreement in the sociology of healthcare literature that the basic criteria or

attributes of a profession are formal recognition, provision of legislation for professional practice (Greenwood, 1957; Page, 2005), a possession of specialised knowledge acquired through higher education, availability of a representative professional body, a written code of professional conduct and ethics, practice autonomy (Moore, 1970; Freidson, 1988; Sparkes, 2002), and a culture (Greenwood, 1957). However, different occupations may present different patterns of professionalisation. Law and medicine, for example, symbolise the typical model of the established profession because it presents the formal traits traditionally associated with professionalism, thus providing an authoritative example and benchmark for occupations embarking on professional projects. On the other hand, other occupations such as teaching and nursing have been treated as 'semi-professions' in the past. While they exhibit many of the structural and organisational characteristics usually associated with check-list or trait-based approaches to professionalism (Etzioni, 1969). However, based on these definitions, radiography in countries such as the UK, Canada and Australia are professions as they have professional associations; The Society of Radiographers in the UK, The Canadian Association of Medical Radiation Technologists, and The Australian Society of Medical Imaging and Radiation Therapy. Their professional knowledge is reproducible from recognized and accredited professional training, their practices are governed by professional regulatory bodies (HCPC in the UK (HCPC, 2015), The Australian Health Practitioner Regulation Agency (AHPRA) in Australia (AHPRA, 2018), and The Federation of Health Regulatory Colleges of Ontario (FHRCO) in Canada (FHRCO, 2017). They also have a culture of common understanding, experiences and shared identity that is internalised every time newcomers join radiography. Radiography in countries that do not fall under these definitions can be considered occupations.

2.5.2. Formal Recognition and Provision of Legislation for Professional Practice

Social status and a privileged position in society are important features of being in a profession (Moore, 1970; Sparkes, 2002; Evetts, 2006; Joynes, 2014). They are the relative respect, competence, and deference granted to the professionals in a society. The legislation that licenses and regulates professions is particularly

important for a new profession, ensuring that only individuals who have successfully graduated from higher education can function as professionals and serve the public with their expertise (Page, 2005). The formal recognition of professional status is significant and desirable because it is an acknowledgment that there is demand for expert knowledge and the need for it to be formally sanctioned in the law (ibid). To achieve formal recognition as a profession, the occupational group has to provide evidence of professionalisation (Sim and Radloff, 2009), which is partially achieved by setting the boundaries which delineate an occupation (Sparkes, 2002). Once professions are legalised, the legislation will impact on the everyday life of the professionals through their language, attitude, behaviour and interactions (Page, 2005; Ashforth et al., 2007). Legislation grants the professions powers and privileges in certain areas such as accrediting professional programmes, curriculum content, and calibre of instruction. In addition, the professions acquire control over admission into the profession via protected professional titles after graduation from an accredited professional school and a licensing system for qualifying competent professionals. At the individual level, joining a formally recognised professional group fosters a sense of professional identity, which, consequently, helps practitioners develop mastery of the profession and assume the role of professionals (Kramer et al., 2013; Lai and Pek, 2012). Radiography in some countries possess these features of social status of professionalism. For example, the British, Canadian and Australian radiography professions are governed by professional bodies and have set standards and regulation (AHPRA, 2018; FHRCO, 2017; HCPC, 2015). Professional bodies set standards for professional training and the awarding of qualifications of equivalent qualification level for the regulated professions. Radiography practitioners in those countries, therefore, possess autonomy by making independent decisions utilising their professional judgement and acting in a self-directing role, Based on their professional knowledge and expertise they develop services, provide independent governance for the profession and legislate competence via registration and licensing boards. The next paragraph highlights the role of HCPC in the UK as the health professional regulatory body including radiography. The context of radiography in countries such as Oman where the practice is not governed by a health professional regulatory

body and professional legislation, do not fit to the given criteria for being a profession. They would not be able to exercise professional control.

The HCPC provides governmental and public recognition for the health professions including radiography, and safeguards the public (HCPC, 2015). The HCPC sets standards for healthcare professional entry to the register and for continued registration. It approves education and training programmes that work to deliver those standards. It maintains a register of graduates from those programmes and takes action to ensure those standards are met. It also handles complaints against registered health professionals, and reviews fitness to practice (ibid.). In contrast with the context in Oman, there is absence of a body that govern, set standards and discipline practitioners. The context affords radiologists the leverage over the radiography profession to control the radiography practices.

2.5.3. Specialised Knowledge

The professionalisation of an occupation involves the clarification of an associated knowledge base and practices, and has strong roots in higher education to ensure the safety of society (Sparkes, 2002; Page, 2005). The specialised accredited knowledge works to uphold the authority of the discipline (Greenwood, 1957), and specialised knowledge and general standards are core elements in training new professional members to ensure quality of practice (Rafferty et al., 2001). Thus, the continuous growth of specialised knowledge is an important factor in the professionalism of an occupation (Freidson, 1986). A profession that has access to a significant body of knowledge demonstrates a cultural power (Corfield, 2000), and enhancing professional skills and knowledge are partially dependent upon scientific research (Sparkes, 2002). The participation of professional members in scientific research ensures the continuous growth of professional knowledge and means of improving services to their patients. It also provides legitimacy for clinical practice (Sparkes, 2002; Sim and Radloff, 2009). Traditionally, much of radiation and radiography knowledge has been the result of research by physicists and medical practitioners (Decker and Iphofen, 2005). In Australia, radiographers are expected

to be more engaged in research after the introduction of degree entry for the Medical Radiation Science (MRS) professions; radiography and radiotherapy (Sim and Radloff, 2009). Little research has been conducted by Australian MRS practitioners, however, for several reasons, including poor involvement in research, lack of understanding of the research process, lack of confidence in undertaking research, lack of time, and lack of financial support, poor attitude towards research and practitioners' resistance to change (Sim and Radloff, 2009). In the UK, the radiography 'Research Group' was formed in 2002 to help the Society and College of Radiographers (SCoR) to fulfil its objectives, by encouraging its members to use research in their practice and to promote radiography's unique body of knowledge (SoR, 2017). In a continuous approach, in 2015, the SCoR presented the fourth research strategy in response to the Society and College of Radiographers Strategy [2015-2017] which conveys research as a key part for promoting the profession and practice. The research strategy aims at developing standards for education and practice, promoting and conducting research, and listening to patients and service users. It focuses on Supporting professional development and building professional credibility through research (Harris, 2015).

2.5.4. Professional Bodies

Members of a profession share technical knowledge with each other and disseminate knowledge through their professional associations. In addition, professionals often function through a network of formal and informal groups such as associations or societies. Associations are formal professional bodies created by the profession's members to promote group interests and aims. The professionalisation of an occupation, however, also involves the establishment of a regulating body that works towards professional control, such as by maintaining the entry requirements to the profession, enhancing skills and knowledge and providing a high quality service (Greenwood, 1957; Moore, 1970; Freidson, 1988; Sparkes, 2002). Healthcare professions operate with organisations that offer formal institutional settings where they meet patients (Greenwood, 1957). Registered professions offer their members exclusive privileges to support them as professionals with professional standards, regulations and policies, and other

mechanisms for professional development, such as CPD and research (Corfield, 2000; Decker and Iphofen, 2005). The professional standards include setting requirements that effectively prohibit other healthcare professions from providing the same services (Corfield, 2000; Haas-Wilson, 1992). Hence, effective regulations serve the society by stopping poorly trained, incompetent or unethical professionals from practising, and guide the behaviour of those who are in the service (Haas-Wilson, 1992).

The Society and College of Radiography is an example of a formal professional association which has a role in maintaining the standard of the UK radiography profession.

The Society of Radiographers (SoR) is the trade union and professional body for the UK diagnostic imaging and radiotherapy workforce, founded in 1920. It aims to ensure the safest and highest quality diagnostic imaging and radiotherapy services. The Society is governed by its members through elections. It conducts business and provides expert services to its members and the public in certain areas: professional and educational, trade union and industrial relations, membership and public relations, and business compliance. Together with the College of Radiographers, these organisations shape policy and standards in a wide range of professional issues. They also ensure safe and fair working conditions for their members (SoR, 2017). The SoR received approval for state registration of radiographers through the Council of Professions Supplementary to Medicine (CPSM) Act of 1960 and the setting up of the CPSM in late 1961 (SoR, 2008; Decker, 2009). The CPSM has since then been replaced by the Health and Care Professions Council (HCPC) and maintains the registration of all allied health professionals in the UK including radiographers (HCPC, 2015). After it was registered as a profession, the SoR developed its own professional code of conduct, regulated the training and practice of radiography and commenced the development of its own knowledge base (Decker and Iphofen, 2005; SoR, 2017). In 1990, the College of Radiographers (CoR), introduced a 'Strategy for Research' in radiography, and later the 'Curriculum Framework' for radiography. Thus, radiographers became increasingly engaged in

research activities to develop radiographic knowledge and practice (Decker and Iphofen, 2005). The title protection enables the public to identify radiographers as registered members of the profession with a regulatory body and consequently, accountability for the delivery of radiography services to established professional standards (SoR, 2008).

In rapidly changing healthcare sectors, and given the need to deliver quality healthcare services, professional bodies are expected to take active roles in developing the profession and promoting its members. In addition, professionals are expected to be more engaged in CPD activities and carry more complex practices in the form of extended roles (Sim and Radloff, 2009). The impact of role extension and CPD on professionalism are discussed in the next few sub-sections. The context of role extension in Oman is given on page 14.

Extended Roles

Professional competence is the ability of individuals to move and adapt to more complex practices and to direct routine tasks to assistants (Sim and Radloff, 2009). The levels of professional competencies, however, are reinforced within a professional hierarchy that keeps pace with rapidly changing healthcare systems and the need continually to improve quality healthcare (ibid.). The constant developments in healthcare technology, along with social factors such as a shortage of healthcare manpower and an aging population, have influenced radiographers to take on more duties and extend their roles. Image interpretation, is an example of extended duty taken by British radiographers (Beardmore, 2012), Role extension implementation is slower in other countries such as New Zealand (Yielder, 2006) and Oman. This has led to a change in the overall approach to practice (Decker and Iphofen, 2005). For instance, in the UK new roles and new ways of working were fostered by the NHS Plan of 2000 (Department of Health, 2000). In mammography, for example, a consultant practitioner role was introduced in addition to creating a role of assistant practitioner who would work under the supervision of a radiographer so as to release radiographers for role extension on the tasks traditionally undertaken by radiologists (Price and Masurier, 2007). To support the

practitioners in their new roles, The College of Radiographers (CoR) has produced a range of publications that focus on the changing scope of practice and educational requirements. An explicit 4-tier structure issued by the CoR recognises the extending scope of practice of radiographers (to advanced and consultant practice levels) and the sub-professional role of the assistant practitioner (SCoR, 2009). The UK 4-tier structure fits into the professional socialisation model by clarifying roles and providing guidance for a radiography career path.

Continued Professional Development (CPD)

The need to provide quality healthcare in a rapidly changing healthcare system requires health practitioners to update their practices (Sim and Radloff, 2009). In addition, practitioners' intellectual interest in their work among, and in further extending it, is an element of professionalism (Freidson, 1994). Thus, professional bodies have responsibilities to set and define profession-specific standards of CPD and to accredit practitioners who meet these standards (SCoR, 2008). In some countries, fulfilment of CPD requirements is mandatory for professionals for the renewal of the statement of accreditation, such as in the Australian MRS (Sim and Radloff, 2009), and UK medical imaging, radiation therapy and oncology practitioners (SCoR, 2008). For example, in the UK, practitioners are required to record a minimum of twelve CPD activities that both meet the set requirements and are referenced to an individual CPD framework of six professional outcomes. The twelve activities must be recorded and updated within the two-year period for accreditation (SCoR, 2008). The UK SCoR (2008) regards the certificate of CPD accreditation as evidence that the practitioner has met appropriate professional standards of accreditation. Whilst a profession or professional body may be made up of and influenced by its members, if there is any conflict with the leadership, it could lead to the dissatisfaction of the practitioners. A possible solution to this is to get people talking and listening to one another in meetings or conferences. Doing so requires the members and leaders to come to an understanding of the issues at hand, and to design a series of dialogues around the issues (Davidson, 2013).

Code of Professional Conduct and Ethics,

A professional body has a regulatory code that compels ethical behaviour on the part of its members (Greenwood, 1957). The profession's ethical codes may be both formal and informal. The formal are the written codes issued by professional bodies. The informal are unwritten codes that nonetheless carry the weight of formal prescriptions (ibid). Through professional ethical codes, the profession's commitment to social welfare becomes a public matter; thereby ensuring it is trusted by society (Evetts, 2006). The professional code of ethics is explicit, systematic and binding and specifies patient-to-professional and colleague-to-colleague relations. It enforces relationships and behaviour that are cooperative, egalitarian and supportive. Implicit ethics requires a culture in which ethical behaviour is understood by the practitioners to be crucial to the makeup and functioning of the profession (Lee et al., 2018). For example, a profession that has a high level implicit code of ethics is one that informally expects practitioners to demonstrate a high level of professionalism, honesty, and integrity.

Professionals recognise the importance of winning trust from society. Whilst the public must place their trust in professional workers, professionals must acquire the knowledge and skills worthy of that trust (Evetts, 2006).

Autonomy

Professionalism is also associated with autonomy, which is the freedom from restrictions imposed by bureaucracy and politics, allowing practitioners to make professional judgements using their exclusive professional knowledge (Sparkes, 2002). Radiographers worldwide, including Oman, use their professional knowledge to justify radiographic examinations to ensure low radiation doses delivered to patients. Freidson (2001) describes professionalism as a distinct logic for organising work based on the autonomy of expert professionals to decide on the principles and procedures of their own activities. It can only be achieved through extensive training and experience, and it has important elements of implicit knowledge, embedded in a context of everyday practice (Moore, 1970; Rafferty et al., 2001). It also forms an ultimate value system for self-identified members of a profession

(Moore, 1970). The autonomy of professionals plays a pivotal role in defining the clinical environment, particularly in hospitals (Rafferty et al., 2001). Autonomy of practice indicates professionalism, and professionalisation is directly linked to occupational status within the 'professional hierarchy'. Since professionalism is more akin to professionalisation at an individual and attitudinal level, individual behaviours help to progress and shape the aspiring profession as a whole (Sparkes, 2002). Accordingly, the British radiographers have autonomy over their image quality and application of the lowest radiation dose. Radiologists do not manage radiography practice professionally. In countries where radiographers cannot exercise the right to justify a radiographic dose do not exercise a full autonomy of their profession, radiologists and referring physicians take that role, such as the case in Oman.

With independent clinical decision-making in the healthcare sector comes accountability, audit and evaluation, however. Professional self-governance is continually challenged as professional members are increasingly required to make their practice transparent by accounting for the quality of services delivered (Rafferty et al., 2001). Governments reinforce issues of accountability and quality of care for patients (Sparkes, 2002). To determine baseline expectations, therefore, and to ensure the quality of care, professional bodies develop codes of practice that encompass the concept of accountability (ibid.).

A balance between work standardization and uniqueness grants professional status. Abbott (1988) explains this as professional groups needing to be able to measure and prove the quality of their activities in order to maintain their legal position. On the other hand, their work should not be too easy, as this would allow external evaluation and control. Rafferty and his colleagues (2001) also argued that work must be indeterminate enough for professionals to make relatively independent decisions and avoid having their work controlled by bureaucratic rules or hierarchical superiors.

2.5.5. A Professional Culture

A professional culture is described as a social order unique to the profession, generated as a result of the social rules, interactions, values, norms, and symbols of the profession. Thus, culture is an attribute that distinguishes the profession (Greenwood, 1957). Anthropologists and psychologists refer to culture as a set of common cognitions among members of a profession acquired through social learning and socialisation processes (Sinangil, 2004). In addition, healthcare educators affirm the need for professionals to demonstrate professional values, norms, ethical standards and motivational attributes (Strouse and Nickerson, 2016). Professional values are standards for action that guide professionals' behaviours and are used as a framework for practice amongst practitioners (Weis and Schank, 2000). This was approved by Strudwick's ethnographic study (2011) that a culture presents a pattern of working which perpetuates values and actions and becomes learned behaviour, so that newcomers simulate this culture and the behaviour persists and perpetuates.

Sociology presupposes that all consequences of the presence or absence of professions are restricted to the occupational order and stratification system (ibid.). As early as 1939, the sociologist Talcott Parsons indicated that professions contribute to social order at both cultural and social-psychological levels through the salience of normative behaviour that is within and around the professional activities. They facilitate shared understandings of overarching values amongst their members that create valued cultural patterns. Practitioners may make decisions in practice that have the potential to activate conflicts between values and which may result in ethical complications. Understanding professional values is therefore critical to responding to ethical dilemmas in an effective manner (Weis and Schank, 2000). Acquiring and internalising professional values, therefore, provides a common framework on which expectations and standards can be developed (ibid.). They also simultaneously facilitate shared understandings of daily norms, of shared attitudes, motivations and beliefs among practitioners. Recently, Sciulli (2010) renewed Parsons' central point regarding the vital importance of distinguishing professions analytically from other occupations. He also reasserted that there is a

salient relationship between professions and social order, and proposed that this relationship is invariant, and precisely because it is structural and institutional, not cultural and social-psychological. Generally, to ensure safety in the healthcare system, radiography builds a strong environment of radiation protection for patients and practitioners through the culture of safety which is demonstrated in radiographers' behaviour, decisions and actions of everyday practices. It is not clear to what extent this is true in Oman with the lack of professional registration and code of ethics.

Thus, values form the basic and fundamental beliefs in any professional group and, most importantly, are the essential worth of the professional service to the society (Greenwood 1957). Moreover, professional norms are the guides to behaviour in the work environment, and every profession develops its own system of these role definitions (ibid.).

Nevertheless, to gain entry into any formal groups, and to progress within the professional hierarchy one has to possess a range of appropriate values and behaviours (Greenwood, 1957; Lia and Lim, 2012). These behaviour norms cover every standard interpersonal situation that is likely to occur in professional life (Greenwood, 1957). For example, in diagnostic radiography, there are appropriate modes for making appointments, conducting referrals, and handling consultations. There are also recognised ways of handling and managing patients, supporting and training learners, and communicating with peers, superiors or subordinates, which are specific to healthcare professions. There are even ways of challenging outdated theories, introducing a new technique, and conducting intraprofessional controversies (ibid.). To the extent that professions are norm-based, Sciulli (2010) indicated that the key to the entire sociology of professions lies in identifying these norms and documenting them.

Professions adopt evolutionary mechanisms to tackle recurrent issues. For example, as a result of widespread concerns about nursing care standards in the UK, and following the Francis Report (Ellis et al., 2015), there have been serious efforts to

develop reliable and valid instruments to measure the qualities of applicants to nursing programmes in UK higher education, as well as of experienced nursing professionals. From April 2015, it was mandatory for UK higher education institutions to use a Values Based Recruitment (VBR) tool, so as to recruit for training only the candidates with the personal values commensurate with the professional identity of the NHS (Mazhindu et al., 2016).

When graduates complete their training and join a profession, however, they face new values, practices and languages and often experience culture shock (Xia, 2009). Culture shock is referred to a psychological disorientation experienced by graduates who suddenly enter radically new or different cultural environments (ibid.). Strouse and Nickerson (2016) argued that professional socialisation is indeed an enculturation process because the new identity is constructed over time when a novice enters a professional culture. They also pointed out that socialisation in the professional culture is one way to handle reality shock and reduce the complexity of the socialisation process. Preparing health professional students for the world of reality to reduce the culture shock is reported to be a contemporary challenge in healthcare education (Naylor et al., 2016; Strouse and Nickerson, 2016).

Whilst it is recognised that normative values and behaviours are important to the professional culture, it is difficult to see how the geography of Omani health services, and the variance in modes of service delivery and organisation, could foster a professional culture amongst Omani radiographers. Oman is a vast country and medical services are decentralised and with the lack of professional legislation and standards would not help to unify a radiography culture across the whole country.

2.6. Impact of Leadership in professionalism

The World Health Organization (WHO) (2008) differentiated leaders from managers by their characteristics and attributes. It is argued that leaders work on a vision to be achieved and communicate it to others through strategies for accomplishment. They motivate professionals and negotiate resources and other support to achieve

the goals. They have a sense of their mission, are charismatic, able to influence others, decisive and use creative problem-solving skills to promote care and a positive working environment. Managers organise the available resources and perform to produce the best results. They aim to provide services in an appropriate, efficient, equitable and sustainable manner. They perform to ensure that day-to-day activities run well to achieve the desired results. Their attributes include clarity of purpose and tasks, organisational skills, ability to communicate tasks and expected results effectively, ability to negotiate administrative and regulatory processes and delegation skills (WHO, 2008).

It is leaders' behaviours that facilitate psychologically safe working cultures (Edmondson, 1999) and therefore, the professional socialisation of individuals. For example, the practitioner's willingness to report and discuss errors in practice is enabled by a work culture which is based on mutual respect and trust among colleagues (ibid.). There appear to have been limited studies of leadership in radiography. However, Yelder (2006) argued that radiography in New Zealand needs robust and authentic leadership to profile the profession effectively and to lead it through to a more autonomous future in the climate of change and development. With the implementation of the 4-tiered radiography structure in the UK, the consultant practitioner role explicitly acknowledges clinical advancement and has established a professional leadership role within departments and for the profession. Whereas in Oman, it is when senior radiographers are established in positions of responsibility through their appointment to a management role that they can exert influence. Management is a response to the need to organise the radiography department in a way that brings consistency and order to the delivery of the services. In contrast to establishing direction, motivating radiographers, making changes and developing the profession which is granted by effective leadership (Kotter, 1996). In the end, these remain speculation and therefore, need further investigation.

Consequently, practitioners' behaviours are shaped by the opportunities they get to interact during daily activities in the work environment, their willingness to engage

in the learning behaviour in the work culture and leadership coaching styles (Edmondson, 2004; Tucker, 2007; Spânu et al., 2013). Spânu and colleagues (2013) illustrate that opportunities can be presented when professionals of the same unit have to coordinate their efforts, and also when their workload allows them to engage in learning behaviours.

2.7. Performance Appraisal and Socialisation

The literature review did not reveal a direct link between socialisation and job appraisal. It is arguable, however, that job structure and performance appraisal are important tools in the professional socialisation process. Job appraisals are used in organisations to facilitate career development by clarifying expectations through highlighting strengths and areas for improvement in the role, and are linked with role performance.

Performance evaluation is about giving accurate feedback of appraisal information (Rondeau, 1992). It normally focuses on three areas, namely organizational goals, employees' efficacy and effectiveness (Nikpeyma et al., 2014). The literature indicates that performance appraisal is conducted by means of face-to-face interviews between a manager and an employee, with the aid of interview guides or preparation forms in which they talk about experiences and challenges around issues for which the manager is responsible (Scheuer, 2014). Thus, both managers and professionals can be challenged by performance evaluation (Rondeau, 1992; Nikpeyma et al., 2014; Scheuer, 2014). Unfortunately, the appraisal process is sometimes misused as a disciplinary tool and can be linked with dissatisfaction, lack of motivation, and resistance on the part of the appraiser and employees (Nikpeyma et al., 2014).

Nikpeyma et al. (2014) also highlighted some areas where the performance appraisal system impacts on the outcomes of the process. First, performance appraisal is based on standards. Disharmony between standards and duties, lack motivation among the practitioners, and poor organisational context causes tension

in performance, especially when duties and responsibilities are not well defined. Second, inadequate organisational structure, the lack of objectivity in evaluation tools and the subjectivity of appraisal leads to inaccurate evaluation. Finally, practitioners become demotivated regarding evaluation when they feel the performance appraisal is unfair, but where the appraiser shows positive behaviour and respect it can lead to better employee satisfaction. However, there is a possibility in such systems to avoid conflict by giving universal or near universal positive ratings which can serve to demotivate better performing employees since they do not see their good performance acknowledged or rewarded. Nikpeyma et al. (2014) emphasised that, in an effective appraisal system, appraisal tools must be designed objectively so that the performance of the employees, based on their duties, is measured accurately. In this context, the absence of job descriptions for Omani radiographers would make it difficult for the appraisal to be objective and accurately measure the performance. There is a need to investigate the position of Omani radiographers in relation to performance appraisal. However, this study of their professional socialisation could highlight some aspects of their experience of the appraisal system.

2.7. Identification of the Research Problem

Whilst there is widespread understanding about professional socialisation, there is no evidence to show how Omani radiographers undergo the transition from student to practitioner, nor how they subsequently acquire professional identity as they socialise in their workplace. Crucially, little is known about how they make sense of their experiences in learning professional norms and constructing their identity as a radiographer. This study has therefore been designed to fill this gap in knowledge. To understand the Omani radiographers' experiences, a phenomenological design is the appropriate methodological approach to the research, discussed in the next chapter, within the theoretical framework of occupational socialisation.

2.7.1. Research Statement and Objectives

The aim of this research is to explore the lived experience of professional socialisation in Omani radiographers through a phenomenological enquiry. The objectives are to;

1. Explore the radiographers' lived experience in constructing professional identity.
2. Describe the process of constructing a professional role identity.
3. Understand how professional socialisation affects professional commitment.

Summary

The literature review has described four stages of the socialisation process that newcomers to a profession undergo in their journey of constructing their professional identities. It has also revealed that the process is inevitable and ongoing throughout the professionals career, and that the availability of a professional structure and culture facilitate positive socialisation. The findings of the study will generate knowledge and understanding of the lived experience of Omani radiographers, and appears to be the first of its kind. The study will be significant in the sense that it will;

1. Describe the process that Omani radiographers undergo in constructing their professional identity.
2. Provide useful knowledge on factors contributing or hindering their professional development in Oman.
3. Allow identification of the roles that education and organisations (the MoH) play in professional socialisation.
4. Provide directions for future educational and organisational strategies in Oman in relation to the development of human resources in radiography.

Chapter Three: Methodology

Making the transition from being a professional student to being part of the workforce is a journey undertaken by Omani radiographers in tandem with the

process of constructing their professional identity through socialisation in their professional environment. This chapter describes the theoretical underpinning of the method of enquiry. It also discusses the rationale for the study design, study methodology, data collection and analysis procedures.

3.1. Overview of Phenomenology

The philosophy of phenomenology originated from the work of Husserl (1970), who explained the natural attitude in the lifeworld where the “consciousness of the world” provides a context for the experience. A fundamental concept is the lifeworld, the world of lived experience residing in individuals as conscious beings. The lifeworld is conceptualised as pre-reflective. van Manen (1997) explains the lifeworld as:

“... the world as we immediately experience it pre-reflectively rather than as we conceptualise, categorise or reflect on it.” (P: 9)

Husserl regarded experience as the fundamental source of knowledge. Phenomenology precisely investigates the experience of the lifeworld in natural attitude with the focus being on ‘primeval form’ (Dowling, 2007), which is the actual lived experience without reflection.

From a philosophical phenomenological perspective (ibid.), a person is considered to build knowledge of reality through conscious awareness and by intentionally directing his/her focus on the world around them, a process of coming face-to-face with the structures of a person’s consciousness. This experience is regarded as the fundamental source of knowledge and is described by Husserl as ‘essences’ (van Manen, 1997). Husserl’s phenomenology aims to reach an accurate and unbiased understanding of the human consciousness and experience as they appear through a concept of phenomenological reduction (Valle et al., 1989; Racher and Robinson, 2003).

There are three variations in phenomenological approaches that can investigate the phenomena of professional socialisation (Oberg and Bell, 2012) namely; empirical, existential, and hermeneutic phenomenology. These are closely linked to the historical development of the traditional philosophy offered by Husserl.

Oberg and Bell (2012) indicated that empirical phenomenology analysis is characterised more as a descriptive human science rather than as an interpretive philosophical approach. Empirical phenomenology has been strongly influenced by Giorgi (1989) and has a disciplinary link to psychology (Oberg and Bell, 2012). It focuses on the phenomenon itself, accessed through analysis of the descriptions provided by participants of their re-lived experiences of a phenomenon (Hein & Austin, 2001). As a contemporary approach, empirical phenomenology draws on the experiences of typically four to six people, or more in some cases (Giorgi, 2000). It retains the ideals of the traditional Husserlian approach in that it retains a commitment to seeking the essence(s) of a phenomenon, making use of a process called 'bracketing', which is an attitude adopted by researchers to suspend presuppositions and judgments so as to reduce researcher bias (Dowling, 2007). Empirical phenomenology, therefore, seeks meaning from inner consciousness and requires researchers to abstain from the 'natural' attitude that seeks meaning from physical external observation and measurement, instead attempting to see things with a fresh perspective, and abstaining from any preconceptions (Oberg and Bell, 2012). Reduction or bracketing was proposed by Husserl to reduce researcher's biases and to successfully achieve contact with essences and to see the phenomena more clearly (Oberg and Bell, 2012 and Bevan 2014).

Empirical phenomenology differs from other phenomenological approaches in its commitment to focusing on what can be understood from interview conversations with participants reflecting on experience. Thus, its analysis stays closer to the data provided through the participants' pre-reflective descriptions (Oberg and Bell, 2012).

Moustakas (1999) specified two characteristics of empirical phenomenology. First, researchers provide pre-reflective descriptions of participants' experience in verbatim textual language, in a form of written documents such as interview transcripts. This process is a transformation of medium/modality, and each statement provided is valued and compared with other participant reports. Second, is an interpretive stage focusing on the structure of the experience: how did the experience of the phenomenon occur? The researchers make the interpreted structural meanings explicit by providing a clear interpretation process for others to question the interpretation constructed. They also present the interpretation in a discourse appropriate to the discipline so as to extend understanding of the phenomenon (Oberg and Bell, 2012). The analytical process of empirical phenomenology provides a clear, systematic, approach, making the data and analysis openly available to others to question the interpretation constructed by the researcher. It often involves three stages; description, analysis, and theorisation. Description is through the thematisation of interview transcripts. In the analysis stage the findings are interrogated, critically appraised, and extended by bringing them into conversation with relevant literature. The theorisation stage offers the findings, explaining why a phenomenon is happening and what it means. Empirical researchers seek explanation and connection with broader understandings of the world.

Existential phenomenology is linked with Heidegger (1962), who took an 'existentialist' turn and moved phenomenology from an epistemological to an ontological basis for enquiry (Oberg and Bell, 2012). Kvale and Brinkmann (2009) define epistemology as a "philosophy of knowledge" (P. 47). That is, what constitutes knowledge and how it is produced? Ontology gives the meaning of 'what exists', what is the area of the discourse of a field (Seni and Hodges as cited by Turk, 2005).

Heidegger adopted the notion that humanity's essence lies in experiencing existence. Experiences are not isolated from the world, but rather the lived experience forms them and humans are connected to the world historically, socially

and culturally. In existential phenomenology, there is no intentional self before an intentional act. Human beings are all the time limited in what they can do due to context, culture and social and psychological conditions. The context of the experience limits human existence but does not predetermine a discernible world. Researchers' preconceptions have to be removed from participants' experiences of everyday life when adopting existential phenomenology (Oberg and Bell, 2012).

Hermeneutic phenomenology is concerned with human experience as it is lived with a goal of achieving a sense of understanding (Wilson and Hutchinson, 1991; van Manen, 1997). Heidegger (Laverty, 2003), places emphasis on a historical understanding of background, to present ways he/she understands the world. An interpretive process in hermeneutics seeks to bring understanding and disclosure of phenomena through language (Annells, 1996). It can also be viewed as concentrating on the historical meanings of experience, and how their development affects both individuals and society (Polkinghorne as cited by Laverty, 2003). Hermeneutic phenomenology seeks to characterise the core sense of the person's prejudice and understanding, which are grounded in their own life experiences (Gadamer, 2004). To make sense of the radiographers' lived experience, hermeneutic phenomenology was the methodology of choice as it offers participants' interpretation of their experience; how they make sense of their own experience of becoming a full status radiographer and what is the essence of their experience. Existential and empirical phenomenology were discarded as they offer the interpretation of the researchers' on the participants' socialisation. Therefore, hermeneutic phenomenology approach was selected to understand the lived experience of the Omani radiographers and how they constructed their professional identity.

Professionalism is a fundamental concept in healthcare and arises from the individual workplace, interactions and interpersonal relationships (Zarshenas et al., 2014). Professionalism is not only about performing professional activities and skills, but is also about socialisation, involvement, internalization and the development of professional identity.

Grusec and Hastings (2006) explained that socialisation is an active interaction of new members with older members of a particular group. Whereas professional socialisation refers to “the process through which novice practitioners are merged into the profession to become professional practitioners” (Ashktorab et al., 2013). The way that employees view their role identity as professionals is central to how they interpret and act in workplaces (Pratt et al., 2006). Thus, professional identity is about defining oneself as an expert and is associated with the enactment of a professional role (Ibarra, 1999). Professional socialisation, however, is recognised as a complex social process leading to personal change. Appropriate methodological approaches and data collection methods are therefore required to address and provide in depth knowledge about this personal transformation. From this perspective, and taking into account the aim of this study to understand the professional socialisation of Omani radiographers, a hermeneutic phenomenological approach was considered appropriate. This approach will highlight the process the Omani radiographers use to construct their identity and help to understand how they conceptualise themselves as experts.

Phenomenological research studies how people experience a given phenomenon. The approach aims to discover, qualitatively, the different ways in which people experience, conceptualise, realise and understand various aspects of phenomena in the world around them (Martin et al., 1992). In this research, a hermeneutic phenomenological approach is key to exploring and understanding how Omani radiographers make sense of their lived experience in the process of constructing their professional identity.

3.2. Phenomenological interviews

In a qualitative research interview, knowledge is co-constructed socially in the interaction between interviewer and interviewee: they both engage in an interpersonal conversation about the phenomena under investigation (Kvale and Brinkmann, 2009).

The general approach adopted in the interviews for this PhD research was in line with the stated purpose of exploring the living experience of Omani radiographers in their journey to construct their professional identity. That is, to describe the lived experience as precisely and completely as possible rather than to explain it or analyse it (Merleau-Ponty, 1962). The questions asked in the interviews were; first initiated from the interview guide which was developed based on reviewing phenomenological literature (see page 72). Then, more questions were generated based on the narrative of the participant to apprehend and clarify the essence of their experience. The phenomenological interview structure and technique consists of three main domains: contextualisation (natural attitude and lifeworld), apprehending the phenomenon (modes of appearing, natural attitude), and clarifying the phenomenon (imaginative variation and meaning). To enrich the interviews with information and make it comfortable for participants, interview questions must contribute both thematically and dynamically (Kvale and Brinkmann, 2009). Thematically, because knowledge is generated when participants are asked to describe their experiences or feelings; dynamically in order to promote good interaction between the researcher and the participant.

3.2.1. Contextualisation

The experiences of the participants' lifeworld stand out against a backdrop of context. Thus, a participant's biography facilitates understanding of the meaning of their lived experience (Husserl as cited by Bevan, 2014). That is, the researcher must consider the context and biography from which the experience gains meaning to understand the lifeworld of a participant. The interview must therefore develop from a point of providing a context in which the knowledge is situated (Seidman, 2006).

Secondly, descriptive questions are employed to ask about experiences, starting from a point where the participant became a qualified radiographer, and to describe accounts of places or events, actions and activities (Elliott and Timulak, 2005). These serve to;

- Generate information and emergent experiences and emotions.
- Provide elaborate accounts about participants' experiences on particular points.
- Generate the researcher's understanding of the experience or feeling under description.

This strategy enables participants to reconstruct and describe their experience in a form of narrative that will provide abundant information and contextual elements. The linkage of these elements provides the meaning of the experience and how it is constituted (Bevan, 2014). To increase the reliability of the interview, the researcher is required to apply the bracketing concept of phenomenology and act as a 'second-person' by taking up an empathic position and to be non-reactive to the responses. The primary role of the researcher is of reciprocity (Ortlipp, 2008; Høffding & Martiny, 2015). The reciprocity usage differs from other interview techniques as the participants in this type of interview produce accounts of themselves and their worlds, and the researcher takes the empathic position as a recipient accepting the information as it is and is engaged in the participants' narrative. Thus, adopting bracketing is unique to the phenomenological methodology. Applying it in data collection and analysis means the researcher is adopting an open attitude in order to allow unexpected meanings to emerge that allow them to discover meanings and that his/ her experience and assumptions will not influence the participant's narratives. The participant's life experience can therefore be accurately presented (Chan et al., 2013). In the context of this study where the researcher is known to the participants as their teacher or a senior member in radiography in Oman and the possibility that her position with the participant could impact on their narrative, it was very important for the author to define her role as a researcher before commencing each interview and her main part is to investigate their lived experience. It is acknowledged by the author that the degree of influence of her position on the participants remains known only to the participants.

3.2.2. Apprehending the Phenomenon

The next phase is understanding the experience (apprehending of the phenomenon). This is achieved by asking more detailed descriptive questions about particular experiences or events described in the participants' narrative (modes of appearance), in addition to exploring others' experiences. Bevan (2014) emphasised that asking descriptive questions presents many aspects of the experience. Authors such as Elliott and Timulak (2005) and Kvale and Brinkmann (2009) have emphasised developing an interview guide that helps the researcher focus the conversation without imposing too much structure. The researcher is required to make notes on verbal and non-verbal language and posture, and on how participants interpret his/ her experience through the answers (see appendix one for an example of the researcher's field notes) (S)he then investigates these interpretations for more clarity (Kvale and Brinkmann, 2009; Bevan, 2014).

3.2.3. Clarifying the phenomenon

Clarification of the experience of Omani radiographers in professional socialisation is undertaken with the use of "imaginative variation". This happens during the analysis of interview transcripts as a form of phenomenon reduction in relation to removal of variant parts and phenomenon clarification (Bevan, 2014). Imaginative variation is applied when the researcher is conscious of an element of experience, which is then put through the process of imaginatively varying its structural components to uncover invariant parts and thus clarifying its structure (ibid.). For example, asking questions such as "what do you mean by I was happy? "Or what do you mean by "I was feeling responsible?"

3.3. Pilot Study

Kvale and Brinkmann (2009) argue that the production of knowledge in an interview goes beyond a mechanical following of methodological rules and rests upon the interviewers' skills and situated personal judgement in the posing of questions. They also illustrated that the quality of the data produced depends on the interviewer's skills and knowledge of the topic.

A small pilot study using this structure was carried out with two British radiographers in order to help to refine the interview guide in preparation for the main study, as was planned in the ethical application. The main goal of the pilot study was to improve the quality and the efficiency of the main study (Hazzi and Maldaon, 2015) specific objectives were to,

- Train the researcher in the principles and skills of phenomenological interviewing.
- Explore types of phenomenological questions.
- Provide experience to better understand the responses to the phenomenological style of questioning.
- Identify logistical problems that might occur before commencing the main study.
- Provide information on the feasibility of the total phenomenological method and identify modifications needed in the main study.
- Test the selected digital audio recorder Apps on the Smartphone.

On the behalf of the researcher, the Director of Medical Imaging and Radiotherapy Directorate at the University of Liverpool approached radiography faculty to participate in the pilot study. Two volunteers were recruited based on the criteria set for the main study. That is; their professional background as radiographers and their having had more than one year practice experience. The volunteers then contacted the researcher via emails to express their consent to participate in the pilot study and to arrange appointments and venues for the interviews. The participants were one female and one male radiographer. They were part-time radiographers and part-time academics. The pilot studies were conducted in English and audio-taped using “Smart Voice Recorder” Apps in a Samsung, Galaxy 5 Smartphone. Some newer digital recorders are very effective, but can also be complicated to use. Thus, practising with a recorder prior to using it in a research study is highly recommended (DiCicco-Bloom and Crabtree, 2006). A digital sound recorder was a recommendation from a professional from Apple Store as it is commonly used these days by researchers and students for projects. The “Smart

Voice Recorder” App was downloaded from Android “Play Store”. It was chosen by the researcher based on its features; it is a high quality sound recorder with a choice to skip silence, high capacity (ability to record as many interviews as the capacity of the smartphone allows), and allows for the smooth transformation of the audio record to a computer and/ or social media.

During the pilot study, the researcher was making notes and themes which emerged during the conversations. This practice is recommended by Kvale and Brinkman (2009) and Thorpe (2004). Notes were useful for framing questions and, in particular, for elaborating concepts and feelings. A decision was therefore made to structure field notes to be used in the main study.

The small-scale pilot study achieved the following outcomes:

- Providing good experience for the researcher in phenomenology interviews.
- Opportunities to explore and pose descriptive and apprehending questions based on the participants’ narrative.
- The digital “Smart Voice Recorder” was approved for its quality and a decision was made to use an additional Smartphone with the same recorder App downloaded on it for backup purposes.
- A decision was made to structure field notes for better observation of participants’ verbal and non-verbal language, so as to enhance understanding of the participants’ experiences during the analysis stage of the research (Ortlipp, 2008; Thorpe, 2004).
- It was determined that an additional pilot study be conducted in Arabic (the language of the participants in the main study) with an Omani radiographer. In phenomenological interviews, researchers must ask questions in the vocabulary and language of the participants in order to give them the opportunity to express their viewpoint fluently and extensively (Giorgi 2000; Squires, 2009; Bevan, 2014).

An additional pilot interview was conducted in Oman with an Omani radiographer from a non-Ministry of Health hospital. He was a male radiographer who had graduated with an Omani diploma and later obtained a bachelor degree from abroad. The interview was conducted in Arabic, audio-taped using two Samsung Smartphones with Smart Voice Apps downloaded on them, along with structured notes. No changes or amendments were required after this interview. The impact of the use of Arabic as the language of interview, the accuracy of the transcription, and the translation into English are all explained in the analysis section of this chapter.

3.4. Ethical approval and considerations

The word ethics comes from the Greek *ēthos* which means character. Its Latin translation is *mores*, and that is morality. Interview inquiry is replete with moral and ethical issues (Kvale and Brinkmann, 2009), since it concerns participants answering questions about the experience and meaning of their lives and social worlds and explaining those experiences, behaviours, interactions and social contexts (Hewitt, 2007). To undertake social science research, a study project should serve science and human interest, and produce valuable knowledge (ibid.). Research plans should therefore go through a rigid process to assess both the social value and the scientific accuracy of research involving human participants (Guerriero et al., 2015). Although it is not normally possible to eliminate all risk, the ethical appraisal process is essential to ensure minimisation of any risk or harm to the participants (Hewitt, 2007).

Because the researcher is a student at the University of Liverpool, and this research study is to obtain a doctoral qualification, approval was required from the University of Liverpool research ethics committee. The research proposal (Appendix two), in addition to a consent form (Appendix three), participant information sheet (Appendix four), and a guide to the interview questions were submitted to the University ethics committee on the 9th July 2014 for approval. After minor

modifications, the research proposal met the criteria for ethical review and was approved by the University of Liverpool research ethics committee on the 20th August 2014 (Appendix five).

Since the study participants are radiographers working in the Ministry of Health (MoH), Oman, ethical approval was also required from the Omani MoH. The ethical application was made and submitted to the MoH ethical committee on the 3rd of September 2014, as per its requirements, which included the submission of the research proposal both in English and Arabic versions and an Arabic version of a consent form (Appendix six). Again, the research proposal met the review criteria of the MoH ethical committee and was approved without modification on the 28th November 2014 (Appendix seven).

Ethics is not only about obtaining approval from relevant committees, however. It is more about ensuring the safety of the participants, assuring confidentiality, securing informed consent, respect for autonomy, and ensuring no risk or harm befalls participants. See page '68' for the ethical approaches of this study.

3.5. Main Study

The study was conducted in the Sultanate of Oman and targeted Omani radiographers working in the Ministry of Health.

3.5.1. Research population

To achieve a better understanding of the lived experience of the professional socialisation process, the study design identified the inclusion criteria as Omani radiographers working in any of the MoH premises with one or more years of experience. Because they would have gone through an experience of professional socialisation and have something to contribute to the study. Omani radiographers who studied abroad and started their professional career in Oman MoH centres were also included since their socialisation process took place within MoH institutions.

Expatriate radiographers were excluded from the study because they were recruited in Oman on the basis of their professional experiences in other countries and would have had different phenomenological experiences. Their professional socialisation experiences would therefore not necessarily reflect those of Omani radiographers. Expatriate and Omani radiographers working in non-ministry of health hospitals were also excluded from the study because those hospitals and professional practices are governed by their organisational rules and regulations. Omani radiographers who studied and started their professional career abroad and then moved to Oman and worked for the MoH were also excluded.

3.5.2. Recruitment and Sampling

Qualitative research aims to interview samples deeply enough that all the important aspects and variations of the studied phenomenon are captured in the sample (Elliott and Timulak, 2005). Thus, qualitative research uses the criterion of saturation to determine the sample size, which means interviewing more participants until no new information emerges (Elliott and Timulak, 2005). To satisfy the saturation criterion, the most frequent sampling strategy used in phenomenology research is purposive sampling (Grbich, 1999; Sarantakos, 2001; Elliott and Timulak, 2005). That is, if the study aims to depict fundamental, crucial or decisive aspects of the investigated phenomenon, then sampling should ensure that these are covered. To better understand the process of professional socialisation and the development of professional identity, emphases was placed on selecting:

- Participants who can provide rich information (Kvale and Brinkmann, 2009).
- Exhaustive heterogeneous (purposive) sampling across the country in terms of years of experience, specialisation and type of institution such as a hospital, health centre and/ or polyclinic (Guest et al., 2006).

3.5.3. Sampling procedures

After obtaining ethical approval from the University and Oman MoH, the researcher began the first stage of the data collection process by communicating with local

regional authorities through radiographer focal points in order to gain their approval to enter the institutions under their governance, and to conduct the interviews. Eleven people from six provinces were contacted at different times. They were managers/gatekeepers to the institutions/regions to give permission to approach individual participants.

The purpose of the research was explained to them via meetings and phone calls. In the first contact, they were requested to explain the official channels for communication with their authorities and to provide the relevant contact details. In the later communication (after regional local authority approvals were granted), they were contacted to identify suitable candidates who met the study recruitment criteria, who were available and willing to participate, and who had the ability to communicate their experiences and opinions (Spradley, 1979).

The table and the map below demonstrate the provinces and the regions involved in the study (table 3.1 and figure 3.3).

Table 3.1: The provinces and the regions involved in the PhD research

	Province	Region
1	Muscat	Muscat
2	Shariqya	North
		South
3	Dakhlia	Nizwa
4	Batinah	North
		South
5	Buraimi	Buraimi
6	Dhofar	Salalah



Figure 3.3: A map demonstrating the provinces of Sultanate of Oman (Pike, unknown publication date)

3.5.4. Approaching and Recruiting Participants

3.5.5. The participants

The researcher ensured that participants read and understood the participant information sheet and were aware of their right to withdraw from the study at any time. This was achieved by reviewing, with them, certain elements mentioned in the information sheet, and giving them the opportunity to ask questions. Participants were given opportunity to understand the nature, purpose and anticipated consequences of their involvement in the research so that they could give informed consent. Participants were also assured of the confidentiality of the information they contributed to the study by keeping their interview recordings and transcripts anonymous, and through safe data storage procedures (Kvale and Brinkmann, 2009).

3.5.6. Confidentiality and Data Protection

Confidentiality refers to keeping any information which would enable a participant to be identified anonymous. Each radiographer who participated in the study was assigned with a code number (PS01, PS02, PS03,). The participants' codes were also allocated to their audio records and interview transcripts, which were saved in folders and titled with the same codes in the student account on the University of Liverpool server that is password secured.

3.5.7. Informed Consent

Informed consent is a participant's agreement to be engaged in a study after receiving and understanding information regarding the nature of the research. Ethically, consent must be obtained voluntarily and without coercion or inducement. Threats to voluntariness can be due to the attributes of the researcher, the researcher's acts, the vulnerabilities of participants, and the research setting (Nelson et al., 2011).

Participants in this study were approached by senior members of their department to ask their permission to participate in the study, before being contacted by the researcher. Participant information sheets were forwarded to the volunteers, several days before the interview meeting. On the day of the interview, the investigator obtained both the English and Arabic informed consent forms from all the interviewees after a further explanation of the purpose of the study, confidentiality issues, possible risks and benefits. Participants were reminded that their involvement was entirely voluntary and that they could withdraw at any time during the interview (Mauthner et al., 2002; Kvale and Brinkmann, 2009).

3.5.8. Autonomy

Autonomy is referred to as the capacity of the participants to think and decide (Gillon as cited by Hewitt, 2007). Autonomy can be achieved through liberty and capacity for intentional action (Beauchamp and Childress, 2001). Informed consent can be viewed as a sign of respect for autonomy (Beauchamp and Childress, 2001). Autonomy also means that the participants have the right to act freely (Gillon as

cited by Hewitt, 2007), i.e. the right to withdraw without prejudice. It was explained to the participants of the study in the participant information sheet and verbally, prior to the interviews, that they could withdraw from the study at any time.

3.5.9. Role of the Researcher

The quality of the knowledge and the soundness of the ethical decisions depend critically on the role of the researcher during the data collection and analysis phases (Kvale and Brinkmann, 2009), in the sense that the researcher has an ethical responsibility to deliver research work of the highest quality. The quality of data secured through interview also depends on the type of the relationship (formal or informal) created by perceptions of professional boundaries, the capacity for closeness and the personal characteristics of the researcher (Hewitt, 2007).

Hermeneutic phenomenology is a reflective process that leads participants to make sense of their lived experiences and situatedness (van Manen, 1990). The interview as a data collection method allowed the researcher to go deeper into participants' narrative to extract the knowledge to construct understanding. The researcher faced some challenges in the interviews. The process of extracting experiences from the participants led to a tangle of emotions, and a range of complexities. The complexities varied from expressing dissatisfaction verbally using words such as "I did not like it", or by facial expressions, to an extreme of expressing anger and crying during the interview. The researcher's perception and skill were essential to ensure that interviews were conducted sensitively and sympathetic, and the outcomes from the interviews were maximised (Quinney et al., 2016).

The researcher is required to publish accurate findings that represent the field of research and to highlight any areas of uncertainty (Kvale and Brinkmann, 2009).

3.5.10. Data Collection

Various data collection techniques used in phenomenological research include interviews, participant observation, action research, focus group meetings and analysis of textual information. Interviews are recognised as the most useful method for obtaining descriptions of context and eliciting the meaning of the

phenomena being studied (Englander, 2012; Bevan, 2014). The subjects in phenomenological interviews have consciousness and agency and produce accounts of themselves and their worlds without being influenced by the experience of other participants such as in focus groups. Participant observation, action research, and analysis of textual information offer researchers' interpretation of the participants' experiences, these were the reason why those methods were rejected in this study.

Data collection procedures for this study were mainly through conducting individual interviews with study participants. Other sources of data included contextual information gathered from reviewing official documents, such as policies and guidelines, in order to locate the participants' accounts in a wider context. Reflective diaries were maintained throughout the interview period by the researcher as an acknowledgement of her beliefs, experiences and preconceptions, which are viewed as a legitimate part of the phenomenological research process (See also Chapter eight reflecting on the PhD. study). The diaries were extremely useful tools in managing methodological issues and later in the interpretation of the findings (Lowes and Prowse, 2001).

3.5.11. Interview Method

Inviting participants

Radiographers were initially approached by their institutional administrations and departments to take part in the research study. Volunteers were then contacted by the researcher via phone calls or social media Apps, such as "WhatsApp", to arrange interview times and venues that were convenient to them. The volunteers had more than 3 days to give their participation consent. The case was different in Buraimi and Dhofar. A last-minute change was made when the volunteer from Buraimi called the researcher to apologise from participating due to her social commitment and provided the researcher another radiographer who is willing to participate in the interviews. The change took place after three hours driving to Buraimi to conduct the interview. Due to the time constraint the researcher called

the nominated radiographer to secure her voluntary participation and consent and to agree on a venue. The research study was explained during the phone conversation after verbal consent was given. The participant information sheet and the consent form were emailed to the volunteer immediately from a smartphone after the phone call. The participant had four hours only to consider her participation before the interview took place on the same day.

In Dhofar, it was necessary to recruit more than one participant from the province because it is an expansive province and away from the capital by 1,017.4 km. Therefore, the researcher decided to appoint one participant from each the hospital and the HC. The name of the volunteer from a hospital was given well in advance before the researcher travel to Dhofar. The approval to recruit a radiographer from an HC was given at the end of the second day in Dofar after a meeting in the Directorate General of the Health Services to explain the research study. A senior radiographer then made her contacts to find a volunteer and to inform the researcher. The name of a volunteer was forwarded on the same day. The participant information sheet and the consent form were emailed to volunteer immediately before an interview took place on the following day Recruitment in Buraimi and Dhofar could be seen as more assertive than the others in light of the short changeovers.

Venues

Interview venues varied, and included x-ray rooms in health centres, staff rooms, conference rooms and offices in hospitals and polyclinics. One interview took place in a coffee shop and another one in the researcher's house (in a study room) when a participant from one of the regions was visiting Muscat and was free in the evening for the interview, having been given several locations to choose from. The safety of the researcher was assured by the presence of family members in the living room next to the interview venue. All venues were chosen by the participants at their convenience after a discussion of what the best environment might be for the interview. The best environment was considered as a relaxed environment where the participants can comfortably tell their lived experience. Although a quiet venue is best for conducting a qualitative interview, for a meaningful conversation

and quality responses to take place, it's important for the participant to be at comfortable and at ease. A 'Do not disturb' sign was placed on the door when the venues were in hospitals and HCs to reduce distractions. Distracting sounds like loud background sounds in the coffee shop was minimised selecting a quiet corner in a less busy coffee shop. A good digital voice recorder was used for its ability to eliminate background noise (Smart Recorder App).

Interviews

Qualitative interviews are the method of choice in phenomenology and cognitive science (Kvale and Brinkmann, 2009; Høffding and Martiny, 2015). In-depth interviews were recognised as a primary source of data from phenomenology by Husserl, who followed Malinowski and Mead (DiCicco-Bloom and Crabtree, 2006).

A single, face-to-face, individual, unstructured interview method was adopted following the principles of phenomenology to elicit context and explore the participants' lived experience on professional socialisation in-depth. In-depth interviews are used to discover the shared understandings of a particular group. They are adopted commonly in healthcare research (Polkinghorne, 2007), and are used to build a shared understanding with participants by "reconstructing perceptions of events and experiences". After collecting demographic information, in all interviews, the researcher initiated the interview with a descriptive question; could you describe your transition from being a student to a radiographer? This question generated rich information on the participants' contextual experiences moving from being a student to become a radiographer. Participants differed in the way they articulated the shift in their status. Some of them were naive and superficial in their responses, others were able to provide details and expressed their feeling and concerns. Practising bracketing was challenging with naive radiographers. The researcher then tuned the ordering and the depth of probing of individual questions in order to further investigate issues raised in the response to the first question. At this stage, the researcher and the participant were engaged in a conversational style of questioning clarifying points rather than rigidly asking each

question. This style was employed to understand the essence of their experiences in their own words. The questioning mostly involved descriptive, structure, opinion and probing type questions. Adopting phenomenology in this study moved the conversations between the narratives to an understanding of it and allowed access to the consciousness of the Omani radiographers and to comprehend what this consciousness was revealing about their lived experience. Hence, phenomenology is at the same time the science and a method to delve into the participants' experiences in the way that they have socialised, experienced, and created meaning. Phenomenological interviews generated a broad range of research questions around the lived experience of Omani Radiographers (DiCicco-Bloom and Crabtree, 2006).

However, adopting full bracketing was not possible in this study. Many participants could not respond well to descriptive questions and elaborate their experiences. For example, Could you describe your typical day in the radiography department? Most participants stated an aspect of their role and excluded many important details. It was not possible to learn from them the day to day roles, norms, and relationships. In this cases, the researcher had to adopt different techniques to motivate and encourage participants to continue talking. Such as asking guiding questions or nodding the head. It generated semi-structured interviews with questions developed during the interviews depending on the conversations.

The researcher was a teacher to some of the participants. She made a point to clarify her role as an investigator for this research at the beginning of each interview. She had to emphasise it more after the experience of the first interview where she felt that the first interviewee made a comment at the end of the interview asking her to handle some of the issues raised in his responses academically. The researcher-participant relationship was maintained with the followed interviews.

Many scholars writing on phenomenological research, such as Polkinghorne (2007), emphasise the need to conduct more than one interview with each participant to validate the interpretation of the meanings to their experiences and the quality of the research study. However, a single interview is preferred when the topic area

can be covered readily in one meeting (Morse, 1991). A second interview was avoided in this study based on the belief that professional socialisation is an ongoing process and continuing professional developments are therefore expected, which may influence the outcomes of the first interview. Provision for later interviewing to allow for clarification on points that were unclear or needed confirmation, were built into the study design, but clarification interviews and validation of transcripts were not considered. Because the information of the lived experience was meant to be generated based on the essence of pre-reflection on the experience.

The duration of interviews varied from one hour to slightly less than five hours. The average duration was around two hours. In four cases, the duration of interviews exceeded three hours because of the participants' rich experiences and their willingness to share these. The interviews were characterised by the contextualisation and apprehending (clarification) questions. Description questions were asked to unfold the participants' lived experience such as "could you describe your feeling when you first emerged from your professional school?" and "could you describe your relationship with your colleagues?" In the apprehending and clarification, more questions were asked which had emerged directly from the narrative of the participants. For example, "So when you said you did not find yourself in this career? What exactly did you mean by that?"

A reflection was written immediately after each interview. Reflective diaries are extremely useful tools, as recognised throughout the qualitative research literature (Mruck and Breuer, 2003; Hewitt, 2007; Ortlipp, 2008; Thorpe, 2004; Kvale and Brinkman, 2009), because they have value in examining the impact of the position, perspective, and presence of the researcher, evaluating the research process, method, and outcomes, thus enabling examination of the integrity of the research process. Self-reflection prompts changes or reconsiderations of the methodological approach during the data collection process, and allows for the opportunity to adopt new strategies that had not initially been planned.

Although the interview method is defined as an unstructured interview, as noted by DiCicco-Bloom and Crabtree (2006), no interview can truly be considered unstructured. May (1991) described unstructured interviews as those that do not employ preconceived ideas about the flow of the conversation and are done with little or no organization (Morse, 1991). An interview guide was developed for this study to guide conversations (appendix eight), as recommended by Elliott and Timulak (2005). The content of the interview guide was generated from reviewing the literature. It consists of two parts; Part one concerns demographic information such as gender, age, years of experience, the level of education and source of training (either locally or from abroad). This information is useful in order to,

- Find out the characteristics of the participants involved in the research.
- Break down the overall response data into meaningful groups of respondents later in the analysis stage.
- Compare findings across multiple demographics such as qualifications (Diploma, Bachelor and Masters), institutions (health centre, polyclinic and hospital), and experience (junior or senior).

Part two was developed to provide guidance on contextualising the lived experience rather than comprising a set of questions to be asked of the participants. The guiding points were determined initially by the researcher, based on her reading of the literature on how professionals construct their identity. The first interview question was reserved as a primary question for all meetings to initiate the conversation about how the participants felt when completing their professional training and becoming qualified radiographers. The other points in the interview guide were modified as needed, based on what was learnt about the participant and their experience gained in the field (Schatzman and Strauss, 1973). More questions were developed to investigate different aspects of participants' experiences more deeply through active listening (Kvale and Brinkmann, 2009). Furthermore, the researcher was flexible with the interviewing techniques and was prepared to depart from the planned itinerary during the interview in order to capture different aspects of their narrative, recognising that flexibility can be very

productive when it follows the participants' lived experience (Elliott and Timulak, 2005).

Eight hospitals and five directorates general across the country were approached by the researcher to recruit participants. Radiographers in those institutions were approached by the senior radiographers in their departments to find volunteers. It is not possible to work out the overall response rate because radiographers were approached by their seniors in their departments and not by the researcher.

Eighteen volunteers across the country were interviewed over a seven-month period. The interviews took place at different times of the day; venues and settings being based on the choice and convenience of the participants. Some participants preferred to be interviewed, in their workplace, or in public spaces. All had preferences for different times of day and different times of the week. In all cases the participants preferences were honoured.

On one occasion, a participant contacted the researcher via social media and added new information in the form of voice messages. The voice messages described new experiences that led the researcher to conduct a second interview with the participant.

Memo notes were used to record a few words or short sentences of keywords of emerging concepts, researcher's feelings, and observations during the interviews. These notes were useful in phrasing interview questions, and also highlighted areas for elaboration, such as documents to be collected after the meeting. Notes were then translated into an electronic field note with more details (Appendix one). This process fosters preliminary analysis and self-reflection (Kvale and Brinkmann, 2009; Thorpe, 2004). Contextual documents were collected immediately after the interviews as a result of information given by the participants, and continued throughout the analysis process. In some instances, the process of collecting relevant documents was exhaustive. Documents collected included:

- 2004 Civil Service Law. Updated in 2007.

- 2014 MoH Law - for medical and paramedical jobs in medical governmental institutions in civil and military sectors (replacing the Civil Service Law)
- guidelines on performance assessment issued by the Ministry of Civil Services
- The Internship police - Institute of Health Sciences
- Oman Association of Radiographers' Constitution
- A letter from the Radiation Protection Advisor on the Radiation Protection Supervisors' guidelines.
- Role responsibilities of the health centre radiographers in the Muscat region
- Some official confidential letters.

The researcher travelled by car and airplane across the country to conduct the interviews. After reflecting on the data collection process (Ortlipp, 2008; Thorpe, 2004), the need to have an additional interview with a senior member in radiography emerged and a relevant individual (not identified here to assure anonymity but discussed at viva voce) was invited for an interview. It was essential to conduct this interview in order to support and clarify various issues claimed by the participants that were not possible for the researcher to interpret without specialised knowledge of the context. For example, some participants reported that they could not reject unjustified radiographic requests on account of pressure from referring physicians. In the context where radiography practice is not supported with policies which delineate the safe use of medical radiation, the researcher wanted to explore the organisational perspective on the issue and to identify the available mechanisms that radiographers can use.

Method of recording the interviews

Methods for recording interviews for documentation and later analysis included audiotape recording using "Smart voice recorder App" on two Galaxy smartphones.

Pre-Interview

Participant information sheets were forwarded to the participants, either by their institutional administrations, or by the researcher, via email, usually a few days before the interviews took place. This was for the participant to consider their participation before arrangements for the interview were made (Appendix four). After their approval, the researcher was informed by phone to contact the participants to set up the interviews.

The first few minutes of an interview are decisive (Fortune et al., 2013; Kvale and Brinkmann, 2009). Both the researcher and the participant might be nervous about the interview. Thus, the researcher adopted a strategy to build up a relationship with a participant by spending 10 – 15 minutes discussing general issues of the day during the interviews, before switching on the recording Apps. This was necessary in order to engage the participant, establish rapport and create a relaxed atmosphere (Fortune et al., 2013).

The discussion varied, highlighting different issues each time. Some were related to organisational or professional issues, participants' families and the researcher's studies and study experience abroad. During this stage, however, the researcher took opportunities to define the situation, describe the purpose of the meeting, debrief on the benefits and risks, confidentiality measures, participant information sheet, and, more importantly, the participant's role in the interview (Fortune et al., 2013; Kvale and Brinkmann, 2009). It was important to explain to the participant that it is their story, and they are the core producers of the data, and the researcher's role was based on asking for clarification. This strategy empowered the participants (Hewitt, 2007; Polkinghorne, 2007). They were assured of anonymity, that data would be treated confidentiality and that their participation was entirely voluntary.

The researcher then offered opportunities to ask any questions or seek further clarification. This then led to a point where the participants were asked to sign two

consent forms (University of Liverpool form in English and Oman MoH form in Arabic) before switching on the recorders to start the interview.

In some meetings, the dialogue, began in English until the researcher asked to switch to Arabic for the interviews. Language is a crucial element in phenomenological studies. The interview can only be conducted in the participant's language in order to express their experience, feelings and viewpoint fluently (Giorgi 2000, Squires, 2009; Bevan, 2014). Squires (2009) also stresses that interpreters or translators should not be hired during data collection.

Post interview

Qualitative research scholars have noted the value of the time and information gleaned after the interview recorders are switched off (Kvale and Brinkmann, 2009). Once the interviews were concluded the researcher thanked them for their participation and sharing their experiences, then spent some time chatting with the participants. On some occasions, additional information was obtained such that the researcher asked permission, (and the participants agreed), to switch on the recorders again. In all cases, however, retrospective notes were used to record the communications after the interview sessions.

3.5.12. Reflective process

Keeping a reflective diary is a common practice in qualitative research (Ortlipp, 2008). Reflective diaries are extremely useful tools for recording the researcher's perspectives and feelings they had at the time of data collection and analysis (Thorpe, 2004). They provide evidence of various choices and decisions undertaken by the researcher during the study (Mruck and Breuer, 2003). In addition, they acknowledge the researcher's values, goals, thinking, decisions, and experiences behind those decisions (Ortlipp, 2008). The researcher adopted the notion of reflexivity and constructed an approach that would work well with this PhD research. The structure of reflective diary comprised of the following points;

- description of the interview setting
- description of the researcher's position, role, feelings and assumptions

- Interpretation of the interview setting
- Consideration for the subsequent interviews

Reflections can also prompt changes and/or reconsiderations in the plan during the data collection process, and lead to adoption of new strategies not initially planned (Thorpe, 2004; Ortlipp, 2008; Kvale and Brinkmann, 2009). A senior member in radiography was contacted and interviewed as a result of a reflective process. He was selected as being the right person to verify the researcher's queries because he is an official involved in supervising radiographers all over the country. The decision to interview him was made to source detail that did not exist in the contextual documents collected during the study.

Reflexivity also has value in respect of examining the impact of the position, perspective and presence of the researcher. The researcher's background as a radiographer educator. A senior member of radiography education in Oman or a tutor who was involved in training some of the participants, meant she is well-known across the country. In all the interviews, she was very attentive in maintaining her position as a PhD. student researcher and thus distancing herself from her own professional discourse. This position was examined reflexively.

Another significant value of reflexivity is that it can be used as a tool for evaluating the research process, method and outcomes, and enabling examination of the integrity of the research process. The reflective structure succeeded in assessing the outcomes of each interview, highlighting areas for further investigation. Such as, radiographers' views on their professional development, what professional development means to them and how important it is to them.

3.5.13. Translation and transcribing process

In qualitative research, particularly phenomenological studies, language is pivotal in all stages of the research process, from data collection to analysis and interpretation of the findings (Temple, 2008; Squires, 2009). There are two main reasons for this, firstly people use language to construct, as well as describe their

identities. Secondly, researchers require an intense, exact focus on how participants use language to describe their experiences. Translation from one language to another may have consequences in qualitative research since concepts in one language may be understood differently in another language (van Nes et al., 2010). Language differences occur when the collected data needs to be translated into the language of the research.

Translation has several consequences. First, it raises issues of validity (Squires, 2009). Qualitative research explores meanings in participants' experiences. Language is used to express meaning, and it influences how meaning is constructed (van Nes et al., 2010). The validity of the translation is achieved when the meanings, as experienced by the participants, and the meanings, as interpreted in the findings are as close as possible and communicated to the reader as it was expressed in the original source.

Second, translation between languages involves interpretation. The message communicated in the language of origin has to be interpreted and transferred into English in such a way that the reader understands what was meant. This is more difficult when cultural contexts differ, and translation to another language is required. This may result in loss of meaning, particularly when metaphors are used.

Third, translation of quotes (Squires, 2009). It is hard to translate specific cultural concepts employed by the participants with exact meaning to another language. Translating word by word would only reduce meaning.

Although van Nes et al. (2010) recommend using the services of a professional translator, arguing that this would contribute to improving the validity of the research and the quality of the transference of the findings, Squires (2009) suggested that the primary researcher undertake this process. To ensure credibility and confirmability of data and findings translated, Squires emphasised that the researcher should have a high level of language competence, high-level of sociocultural competence and significant background knowledge about the country

or place of study. The researcher of the current study shares with the research participants the same language and professional background and in addition has practised in the same professional culture.

The Arabic audio recorded interviews in this study had to be translated and transcribed in English for the analysis and interpretation. This is because the study was conducted as part of the doctoral programme, and it had to be transformed into English which is the language of supervision and examination. It was initially planned to use professional translator services to ensure the validity of the translation and the interpretation of the meaning close to the meanings of the participants. After reviewing the first interview translation, however, the researcher was disappointed with the quality of the product despite intensive meetings with the translator seeking to clarify the expectations regarding the translations and the detailed information. There were three critical issues in respect to the quality of the translation produced; omission, accuracy and terminology. It was obvious that this was going to have a significant effect on the interpretation of the study transcripts and therefore, the validity of the research. The researcher, therefore, undertook the translation process in order to secure the many details relevant to the study and the analysis (Kvale and Brinkmann, 2009). This approach had several advantages:

- It allowed the researcher to immerse herself in the data.
- It allowed the emotional and social aspects of the interview to be incorporated.
- It was a step in the analytic process.

Translation and transcribing audio records were done simultaneously, which was an intensive and exhaustive process. The process started immediately on the following day of the interviews. The first approach the researcher took to the translation was to listen to the audio tape before commencing the translation to establish the suitable vocabularies, expressions and terms. Taking notes on the participant's expressions and the researcher's feelings was also important at this stage and was combined with the notes taken at the interviews. Then, interview statements were translated sentence by sentence rather than word-by-word to achieve a meaning

closer to what was said by the participants, frequently replaying the audio recording to achieve accuracy. Pauses, tone of voice, emphasis in emotional expression, like laughter, was included in the transcripts with the aid of notes taken during the interviews. Fifteen to twenty minutes of recorded interview was translated per day. The period of translation and transcribing varied between 1-3 weeks depending on the duration of the interviews. The English transcripts were then given to an editor for proofreading, which then was verified by the researcher to ensure that the actual meanings were not compromised. Although the researcher has experience in using English in teaching and communication, it is still considered as a weakness when it comes to translation, especially as translation is a discipline by itself, and not the field of the researcher. To minimise the impact of the researcher's limitations; vocabulary was checked in the dictionary, and translations were tested by putting them in different sentences to verify meaning.

3.5.14. Data Analysis

Data analysis is the most complex process in qualitative research to generate findings that are transformed into new knowledge (Thorne, 2000). Its goal is to present the experience under investigation in such a way as to reflect the lived world of the participants as closely as possible (Polkinghorne, 2007).

The theoretical approach used to investigate the phenomenon, the strategies for collecting the data and the researcher's understandings about what might count as relevant or important data in answering the research question all form part of the analytical process (Kvale and Brinkmann, 2009; Bevan, 2014; Thorne, 2000). Qualitative studies employ an inductive reasoning process to interpret and structure meanings from the data. Inductive reasoning generates new knowledge, in contrast to deductive reasoning that confirms or rejects a particular knowledge (Holloway, 2013). Qualitative studies generate large amounts of data, requiring researchers to engage actively in demanding analytic processes by reading, understanding and interpreting the findings (Thorne, 2000). Researchers, therefore, have to learn and develop systematic strategies for better management of the data. Computer-assisted qualitative data analysis software's (CAQDAS) were developed in

the 1960s and became popular in the 1980s and 1990s (Banner and Albarran, 2009; Cope, 2014). Today, there are various CAQDAS available on the market. Some only use text, and others can import images, audio and video data, newspaper clippings and books (Cope, 2014). These are excellent tools, however, as Thorne (2000) notes, this software is only useful in sorting and organising data. Both Thorne (2000) and Cope (2014) indicate that these tools cannot generate data into meaningful findings through intellectual and conceptualising processes. McLafferty and Farley (2006) indicated that software packages are more specialised for the particular type of qualitative research method. Whereas Banner and Albarran (2009) and Evers (2011) pointed out that the CAQDAS systems have the capability to define and organise coding and information, and analyse relationships and themes in the data. Such systems include Ethnography, NVivo, NUD*IST, Atlas Ti and Qualrus.

By using the software programs, researchers save time performing manual activities, clerical tasks and manual coding. They are environmentally friendly because they limit waste of paper, pens, storage space, and filing cabinets (John and Johnson, 2000). For this study, the researcher used NVivo 10 software. The NVivo 10 software allows importation of files from different sources, auto-coding, ease in coding changes, adding notes, and merging, as well as deleting and moving data. The major advantages of using the software are the ability to study relationships and gain depth in the analysis (John and Johnson, 2000), and to focus on analytical techniques and intellectual thought in identifying meaning and emerging themes (Cope, 2014). The researcher did not use the auto-coding and analysis facilities offered in the software. Instead, the software was used in a focused way to manage resources and data, and support the coding and categorisation processes and a context analysis method was used by the investigator to code data electronically. Context analysis is a systematic approach for making sense of the data collected and to highlight the important messages, features or findings (Kvale and Brinkmann, 2009). Once transcribed the scripts were formatted and inputted into a computer software package, QSR NVivo 10. Each transcript was assigned a code: for the study of professional socialisation, this began with the letters PS followed by a number from 01 to 19 to indicate the participants. The analysis took place over a period of

one year and was undertaken by the researcher alone. The length of time was pragmatic in that the analysis process involved listening to the records repeatedly while making sense of the actual meanings of the responses. The approach is determined by the hermeneutic phenomenology in that such in-depth attention helped to understand the essence of the Omani radiographers' lived experience'. The researcher started with one script, PS01, which was read and reread, listened and re-listen to its audio record. Each script received similar attention but were not studied in any particular order thereafter. The data analysis process employed in this study following interpretive phenomenology can be simplified as follows,

1. Familiarisation of the raw data by listening and re-listening to the audio recording, reading and re-reading the transcript, studying interview notes and reflective diary, and reviewing the contextual documents, to understand the participant experience.
2. The process of analysis began with the identification, creating, and naming of codes using the tools of the software. Coding is one method of working with qualitative data that provides an abstract representation or theme noted by the researcher. Similar concepts were linked to the same code (see table 3.2). New codes were developed when new concepts emerge. This process continued until no more codes emerged from reading the text. The software allows a creation of the major code and sub-codes. It also gives the ability to move the codes or delete them.
3. Developing a thematic framework by identifying all the key issues, concepts and themes by which the data can be examined and referenced. Codes were categorised into themes (see table 3.2). This stage moved the analytical process from a descriptive level to a theoretical level (Kvale and Brinkmann, 2009).
4. Interpretation/ or describing the lived experience based on fulfilling the objectives of the study.

Using computer software packages in managing qualitative data is challenging and required some training. The researcher had to attend a training workshop at the University and watch several demonstration videos on YouTube to master the tools offered in the Nvivo 10. Once they were learned and practiced on the first script, the software became easier to use in the analysis with other scripts. The Nvivo software package contributed to the quality and validity of interpretative phenomenological analysis in this thesis. It allowed naming, renaming, moving and deleting (in some instances) of the codes. Moving the codes into their themes was an easy process and less time-consuming once it was learned. More importantly, it was also easy and less time-consuming to compare participants' responses and making sense of the lived experience of the Omani radiographers.

Table 3.2: Categories of themes and codes emerged from the study.

Themes	Codes	Sub-codes	Sub sub-codes	
Transaction				
	Internship			
	Integration			
	Orientation			
Status of Professionalism of Omani Radiographers				
	Professional			
	Profession and its			
	Professional Values			
	Job Satisfaction			
	Code of Conduct			
	Culture			
		Stereotype		
		Favouritism		
Relationships				
The Impact of Leadership on Radiographers' Professionalism				
	The Impact of Leadership Style on Professionalism			
	Leadership Style			
	Leadership Skills			
	Leadership Attributes			
Radiography In Oman: A description of the Current Situation				
	Unclear Job Structure			
	Role Ambiguity			
	Payment for Radiographers			
	—	Salaries		
		Promotions		
		Overtime		
		Incentives and Bonus		
	Omani Association of Radiographers			
	Legislation and Policies Governing Radiographers and Radiographic			
	—	Regulations for radiographers as Government		
			Working In HC, Covering Practice	
			Transfers	
			Recruitment	
			Job Description	
			Annual Job Appraisal	
		Policies and Guidelines for Radiographers as		
			The Impact of the absence of the Radiation Protection	
			Internship Policy	
			Extended Roles	
Professional identity				
Individuality				
CPD				

Summary

This chapter has located the research in the qualitative paradigm and justified the choice of phenomenology as the appropriate methodology to address the study aims. An account of how the research was designed, initiated and conducted pays particular attention to ethical considerations, issues of gaining access and social relations in the field. The narrative approach involves understanding the radiographers' stories, not simply as descriptions of events but as interpretation of these events through which they attempt to make sense of their experiences and construct their own identities as professional radiographers.

The following three chapters present the results of this analysis of interviews and contextual material.

Chapter Four: Omani Radiography Practice in Context: A Critical Analysis of the Current Situation

The analysis of the data revealed three main categories: Omani radiography practice in context, radiography culture and working life in Oman, and the professional identity of Omani radiographers. The findings of each category are presented as a chapter in a given order as looking at relevant documents first helps give context to the Omani radiographers' views. The demographic data of the participants are given below.

The Demographic Profile of the Participant Radiographers

Eighteen radiographers from sixteen MoH institutions across six provinces, and one MoH official, were interviewed for this study. Table 4.1 below shows the number of radiographers interviewed in each province and their demographic details. Their positions ranged from a basic radiographer to a manager of a radiology department. Their areas of experience include: conventional radiography, intervention radiology, CT, US, Mammography and MRI.

Table 4.1: Demographic details of the participants

#	Research Code	Experience	Educational Level	Age Range	Gender
1	PS01	3	Diploma	26 - 30	M
2	PS02	3	BSc	26 - 30	F
3	PS03	18	BSc	41 - 45 2	F
4	PS04	13	BSc	31 - 35 3	M
5	PS05	8	Diploma	31 - 35 2	M
6	PS06	13	Diploma	36 - 40	F
7	PS07	12	Diploma	31 - 35 2	F
8	PS08	10	Diploma	31 - 35	F
9	PS09	13	Diploma	31 - 35 2	F
10	PS10	6	Diploma	26 - 30 7	M
11	PS11	19	Diploma	41 - 45	F
12	PS12	12	BSc	31 - 35 4	M
13	PS13	20	Diploma	41 - 45 2	M
14	PS14	16	BSc	36 - 40 9	M
15	PS15	8	MSc	26 - 30	F
16	PS16	1.5	Diploma	21 - 25	M
17	Senior	23	MSc	46 - 50	M

	Radiographer				
18	PS18	13	MSc	36 - 40	M
19	PS19	5	BSc	26 - 30	F

Omani Radiography Practice in Context: A Critical Analysis of the Current Situation

This account is drawn from nineteen (18 plus one follow-up) interviews conducted in Arabic, translated into English and transcribed. The chapter sets out the profile of study participants and their account of radiography in the sultanate of Oman.

The findings revealed a direct relationship between radiographers' attitudes and behaviours and the leadership styles of managers. The term management in this context refers to a system in place that provides functional strategies of creating policies and organising, planning, controlling and directing a profession's or an organisation's resources in order to achieve its objectives (WHO, 2008). To understand the management system that governs radiographers, a critical approach has been taken. This findings chapter, therefore, provides an overview of the regulations and policies that affect radiographers as professionals and employees in the MoH by offering insights into the major provisions that have shaped radiographers' identity, taking into consideration the role of the Omani Association of Radiographers (OAR).

4.1. Legislation and Policies Governing Radiographers and Radiographic Practice

The investigation of the contextual documents revealed that radiographers have been subject to the Ministry of Health (MoH) occupational regulations since February 2014. In February 2014, the MoH issued a Ministerial Decree of functional regulations – in Arabic - for medical and paramedical jobs in medical governmental institutions in civil and military sectors (Ministerial Decree No. 16/2014). Before these 2014 regulations, radiographers and other medical, health and administrative personnel were subject to the Civil Service Regulations. The latest update of which was issued by a Royal Decree number 120/2004, governing employee affairs, such as recruitment, promotions, annual leave, salaries, but not the professional issues like the code of conduct, scope of practice and professional standards. The findings

from the participants' interviews and contextual material reveal the absence of regulations or policies governing the professional aspects of radiography practice in Oman. The absence of these regulations affects the quality of the radiography services as it has a direct impact on the behaviour of the radiographers as well as how they are treated by other professionals who work closely with them. The impact on the interactions and relationships, job performance and job satisfaction is perceived as a negative one. It makes it difficult to determine the scope of the radiographer's practice and, therefore, the legally permissible boundaries of practice.

4.2. Regulations Governing Radiographers as Employees in the Government Sector

The Civil Service laws provide the functionality of the management system of public entities within the Omani public sector including the MoH. Reviewing the MoH 2014 regulations, the study found that the MoH used the same provisions as the earlier Civil Service law but tailored them to suit the management of manpower in medical institutions. This can be concluded because the civil service laws provide the framework for the whole public sector. The MoH 2014 regulations placed provisions in sixteen chapters in comparison with seventeen policies in the 2004 Civil Service laws. The sixteen provisions found in the MoH laws are used to manage and control employee affairs such as employment, duties of employees and prohibited tasks, training and scholarships, promotions, annual leave and job performance appraisal. See table 4.2 below.

Table 4.2: A comparison between the MoH law and The Civil Service law.

Chapter No.	Civil Service Provisions	MoH Provisions
Chapter One	General Provisions	Definitions and General Provisions
Chapter Two	Jobs	Jobs
Chapter Three	Personnel Affairs Committees	Personnel Affairs Committees
Chapter Four	Recruitment	Recruitment
Chapter five	Reports of Performance Assessment	Job Annual Appraisal Reports
Chapter Six	Promotion	Promotion
Chapter Seven	Salaries, bonuses, allowances, incentives and compensation	Salaries, bonuses, allowances, incentives and compensation
Chapter Eight	Transport and delegation, secondment	Transport and delegation, secondment and commissioning of the burdens of another job
Chapter Nine	Training, missions and scholarships	Training, missions and scholarships
Chapter Ten	Work schedules and vacations	Work schedules and vacations
Chapter Eleven	Occupational injuries	Work injuries
Chapter Twelve	Employees' Obligations and Prohibited Actions	Duties of employees and prohibited tasks
Chapter Thirteen	Administrative Investigation	Administrative accountability
Chapter Fourteen	End of service	Discontinues
Chapter Fifteen	End of service Gratuity	End of service bonus
Chapter Sixteen	Transitional Provisions	Transitional Provisions
Chapter Seventeen	Functional provisions for undersecretaries and the like	-

Since the data collection was conducted during 2015 (i.e. only a year after the issue of the MoH regulations), it is also important to consider the Civil Services regulations in the analysis of the results. To understand the lived experience as they occurred, the regulations and policies in place have an impact on employee's behaviours and, therefore, have a significant role in formulating experiences and shaping identities, especially for those who have served in Omani health services for long time. In the scrutiny of the Civil Services regulations, however, it was found that the article numbers of the provisions in the English versions do not coincide with the Arabic version of the regulation. The article numbers of the provisions used in this PhD study are therefore based on the English version. For accuracy in interpreting and analysing the data, however, the researcher considered both versions. Since the MoH regulations are only available in Arabic the researcher translated these regulations into English for the purposes of this study. Thus, the translation does not carry official or legal status, which may be considered as a limitation of the current study.

- The field investigations focused on collecting contextual documents to support the participants' narratives. There were four main documents considered in this study as a result of analysis of the participants' transcripts, in addition to the transcript of the senior radiographer. The four documents are: 2004 Civil Service Law (updated in 2007)
- 2014 MoH Law - for medical and paramedical jobs in medical governmental institutions in civil and military sectors (replacing the Civil Service Law)
- Guidelines on performance assessment issued by the Ministry of Civil Services
- The Internship police - Institute of Health Sciences

4.2.1. Licensing System

The study revealed that there is a process of Licensing System described, but without regulatory framework and that this is reflected in participants accounts. The data

disclosed immediate recruitment of Omani graduates from the local professional training institution (the IHS).

"First of all, I graduated from the Institute of Health Sciences in Muscat, and I was employed immediately." (PS12)

Omani graduates from abroad are recruited after passing the personal interviews in the MoH building.

"I applied to the Ministry of Health and did an interview." (PS15)

The research investigation did not reveal a relicensing system or procedure in Oman radiography.

4.2.2. Job Descriptions

In the context of this study, the job description is defined as a formal written (Cook, 2017) statement of a specific job that includes the duties, purpose, responsibilities, scope, working hours per week and working conditions of the job, along with the job's title, and the name or designation of the person to whom the employee reports.

In the review of the contextual documents, Chapter one, article one of the Civil Service Law provided an operational definition of the term "job" as:

"Duties and responsibilities set by the competent authority and require certain qualifications and prerequisites." (Page 5)

The document included other relevant terms such as job category and job structure. The article failed to add job descriptions in its provisions, even though the guideline document on the job performance assessment specified that the employee shall be assessed in accordance with the duties and responsibilities noted in his job description.

“The basic standard in the job appraisal is the normal performance of the employee in accordance to the burdens of the job, the specification in the job description, and measures & efficiency required in the job that is specified by the unit to achieve its goals.” (Point 2, General rules, Ministry of Civil Services, Guidelines for Performance Assessment Report, undated, Page 6)

During the scrutiny of contextual materials, the research could not find official job descriptions for radiographers. However, one particular region created a set of role responsibilities for radiographers in primary healthcare centres. However, the absence of job descriptions leaves professionals in a situation where they do not have accurate information on their roles. This situation challenges professional socialisation and impact on the tenets of professionalism in the setting of one’s own boundaries and clarification of expectations. Employees working without guidance, do not have the clarity to their expected roles and boundaries, and are vulnerable to exploitation. They also may be asked to perform tasks that are not related to their intended roles or the profession.

4.2.3. Performance Appraisals Policies and Guidelines

Radiographers, as employees in the public sector, undergo annual performance evaluation. Both the Civil Services and MoH regulations have in place provisions to evaluate employees’ performance.

“Annual performance assessment reports of the employees shall be prepared according to the efficiency measurement system set by the Ministry of Civil Service in the way that suits the nature of work in the units.” Article 19, Chapter five, Civil Service Law.

"Employees' annual performance assessment reports shall be prepared according to the efficiency measurement system, consistent with the nature of the work in a unit." Article 45, Chapter five, Regulation of functional

Affairs for Occupants of Medical and Paramedical Jobs in the Government
Medical Institutions (civil and military), MoH.

In addition, the Ministry of Civil Services has issued guidelines on performance procedures (undated). The document specifies:

1. The objectives of the job appraisal.
2. General instructions.
3. Guidelines for scoring performance.
4. Objective, instructions and guidance for keeping a register of employee's performance throughout the year of evaluation as per article 19 of the Executive Regulation issued by the decisions of the civil service council (9/2010).
5. A register of grievances.
6. Samples of three sets of assessment forms with an explanation of how to complete them.

The Ministry of Civil Services had prepared systems for measuring occupants' performance adequacy and published them in a document as guidelines for the performance appraisal. The document provides a set of three standard job evaluation forms for four categories to be used in the public sector: supervisory, operational, craft and auxiliary posts. At the point at which the data for this PhD study was analysed, radiographers in the MoH continue to be appraised using the civil service forms, even after the issuance of the MoH regulations two years ago. Radiographers at the operational level working directly with patients in conventional radiography and in specialised units are evaluated using standard forms. Radiographers in management roles are appraised under the category of supervisory. The field investigations revealed that the civil service form used to appraise radiographers in the ministry of health is the same form applied for medical, health allied personnel and administrative staff. Table 4.3 (below) shows nine points used to evaluate the radiographer, as well as other employees in the public sector. Professional attributes, values and competencies are vaguely evaluated using this form.

Table 4.3 Evaluation statements in the civil service annual appraisal.

Evaluation element	Maximum Grade
The level of quality in the performance of the duties and responsibilities of the position	15
Entrepreneurship, innovation and self-development	15
Assume responsibility and good conduct	15
Teamwork and management of his responsibilities	10
Accept criticism and guidance	10
Commitment to work system, punctuality and occupational safety	10
Maintaining work confidentiality	10
Communication with others	10
General appearance	5

In the contextual review of the guidelines for job appraisal, it was found that the guideline document indicated six objectives of the job performance appraisal, including identifying employee' strengths and areas for improvement and motivating him/ her to work harder:

1. *Measuring the employee's efficiency and merit in carrying out job duties and responsibilities.*
2. *Identifying strengths and areas for improvement of the employee's job performance, and find means to supporting strength areas and find the solutions to overcome the problematic areas.*
3. *Correctly and effectively identify candidates for promotions, incentives, bonus, transfer from one job to another within a unit or organisation, scholarships or discontinues.*
4. *Define training needs.*

5. *Provide the necessary information that would help to check the manpower availability and suitability according to the competencies required for the job.*
6. *Motivate employee to work hard, demonstrate the extent of his abilities and provide new ideas towards promoting the service, and achieving his occupational ambitions.* (Ministry of Civil Service, Guidelines for Performance Assessment Report, undated, Page 2).

Moreover, it provided an explanation of the systematic procedures of the appraisal system. As per the provision of Article 19 of the Executive Regulations issued by the Civil Service Council No. (9/2010), each direct supervisor must maintain a register to record subordinates' performance throughout the year, in the categories of poor and good. The registration form is already designed, and a sample is offered in the guideline document. The procedure aims to establish an objective basis for judging the employee's performance efficiency according to facts that show the employee's performance throughout the year. It also seeks to make the performance process regular and continuous as a result of continuous recording of the subordinates' performance throughout the year. It also provides examples of performance that help the appraisers when completing the appraisal form at the end of the year (P: 5).

The Civil Service law specifies the route followed by the evaluation report during the appraisal procedure. The direct supervisor completes the reports and sets recommendations, referring these to the senior manager for approval. After the verification of the annual appraisal reports, the Civil Service regulations assigned to the personnel affairs in the institutions the responsible to notify only those who scored poorly in their reports.

“The direct manager shall prepare the reports of performance assessment of the employees under his supervision and once the performance reports are approved, Personnel Affairs Unit shall inform the employee whose reports

indicates 'weak' performance in writing about the content of the report.”
(Article 22, Chapter five, Civil Service Regulation).

The Ministry of Civil Services guidelines for job assessment provide general rules and explanations on evaluating performance, and on the technical aspects of completing the evaluation forms. In regard to how the employee receives feedback on his/her performance, the guidelines do not provide additional instructions on whether an employee can see their reports when the procedure is completed. The guidelines state to ‘instantly and immediately’ inform the employee of her/his poor performance throughout the year of evaluation by the immediate supervisor so that practice can be rectified. The employee can only see the report when notified by the Personnel Affairs Department that he scored "Weak".

The MoH regulation, on the other hand, gives all employees the right to be informed of the content of their annual appraisal reports.

“After the adoption of the reports, the organisational division looking after personnel affairs should then, immediately notify the employee the content of the report.” (Article 49, Chapter five, MoH Regulation).

Both the Civil Service and MoH regulations, however, require direct supervisors to instantly alert employees in writing of their areas of improvement during the year of evaluation.

“Through his direct manager, the employee shall be informed in writing of any negligence, default, or weaknesses on his party in order to rectify the same. The Regulation shall set the procedures for determining the assessment and the marks of every category.” (Article 20, Chapter five, Civil Service Regulation).

“The direct supervisor to notify the employee in writing and in timely of weakness during the year of evaluation.” (Article 49, Chapter five, MoH Regulation).

The word ‘instantly’ is specified in the Arabic version of the Civil Service Regulation. Despite the MoH regulations permitting organisations to add more relevant criteria to the appraisal form relevant to their type of duty, the research investigations found that the civil service forms are still used in the MoH institutions to appraise radiographers without amendments. Radiography practice has a specific nature that involves precise professional knowledge and clinical skills and particular professional expectations. These measures are expected to be articulated in effective appraisal tools and the MoH has thus far failed to provide such.

“The Unit may add other criteria commensurate with the nature of their work.” (Article 48, Chapter five, MoH Regulation).

An ineffective job appraisal system inhibits professional socialisation as it is not measuring the professional standards and behaviours that are specific and relevant to radiography. This makes it more difficult for radiographers to meet the expectations of their profession when they are not evaluated on their professional behaviours and competencies, and are not informed of their strengths and areas for improvements on a regular basis. Regular feedback and job appraisal facilitate role development and shape professional identities (Nikpeyma et al., 2014).

4.2.4. Radiographer Payment

Article 34, chapter seven of the Ministry of Civil laws indicates that an employee receives a salary in accordance with the financial grade he/ she is appointed to.

“The appointed employee shall be entitled to the salary set for the grade of his job according to the grade and salary table attached to this Law.” (Article 34, chapter seven of the Ministry of Civil laws)

Article 67, chapter seven of the MoH laws also points out that the salaries given to its employees are in accordance to their appointment grade.

“An employee receives the salary designated for his appointment grade in accordance to the supplements to salaries, allowances and bonuses attached to Royal Decree No. 33/2013.”

Neither laws enacted policies that differentiate the provision of grades for employees of the same profession performing different tasks or working in institutions requiring performance of different skills and competencies.

4.2.5. Incentives and Bonus Procedures

Article 36, chapter seven of the Ministry of Civil laws enacted a law entitling employees to a periodic bonus at the beginning of each year as long as they scored higher than 'weak' in their annual appraisal:

“The employee shall be entitled to a periodical bonus at the beginning of January of each year within the limits set for his grade according to the grade and salary table attached to this Law (Annexure 1) provided that he has spent at least six months in the job.

The employee shall not be entitled to the periodic bonus if his latest performance report is ‘weak’.” (Article 36, chapter seven of the Ministry of Civil laws)

Article 36 of the same law has set some guidance to the criteria for the receipt of this additional bonus an employee may receive as a result of the discriminatory work:

“Pursuant to a resolution from the unit head the employee may be given one or two periodical bonuses of the category set for his job for once a year and at a maximum four allowances in the same grade provided that his

performance assessment report is at least 'very good' and that he has exerted special effort, achieved economy in expenditure or raised the performance level. Giving such allowance does not prevent him from receiving the periodical bonus at its specified time.” (Article 36, chapter seven of the Ministry of Civil laws)

The above regulation entitles radiographers to be recommended for a bonus as a result of good and exclusive performance. These types of provisions can be used to motivate employees to promote their practice.

4.3. Regulatory Body of Radiography Practice

4.3.1. The Omani Association of Radiographers

There is evidence from this thesis that the OAR's attempts to tackle professional issues due to the absence of laws and poor management had an effect on radiographers. When the senior radiographer was asked about the authority that is responsible for resolving professional issues, he referred to the OAR.

“But since I came to the ministry, and being a member of the Omani Association of Radiographers and my close relationship with the chief that succeeded me, we wanted to fix these problems. So, we started to work on them. However, we faced a lot of obstacles, mainly because there is no organisational structure for the profession in general, not just the radiographer.” (The senior radiographer)

The researcher's experience of working in the OAR, reviewing OAR documents and searching on google for OAR activities revealed that the activities of the OAR were limited mainly to conducting continuing professional development programmes such as conferences and workshops, and attending meetings to represent radiography. There were efforts to create its own website, but this was never launched. An example of evidence is an article published online on the 20th February 2010 on the website www.madarisna.info of a seminar on the

developments in diagnostic radiography (Mohamed, 2010) and an Arabic letter dated 31st March 2013 on a follow-up meeting after a CT conference organised by the OAR. Part of the Arabic letter is translated and given below:

“The Board of the OAR would like to hold a joint meeting between the main Organizing Committee of the [CT] Conference and the Board members of the OAR to clarify and discuss the following topics:

- *Clarify what was agreed between the members of the Organizing Committee and the Board members of the OAR prior to the organization of the conference.*
- *Revenue and expenses of the conference.*
- *Clarify the reason for giving financial rewards to some members.*
- *Other raised matters.”* (OAR correspondence, Appendix nine)

During the collection of contextual documents, the researcher was informed by one of the OAR’s senior members that there was an attempt to conduct a research study in collaboration with the MoH in 2013 on patients’ satisfaction with radiography services, but this did not take place due to a general lack of commitment. The contextual investigations did not find any documents on policies or guidelines released by the Omani Association of Radiographers (OAR) during its period of existence up until the time of data collection. A code of ethics, code of practice and professional competency frameworks were not developed for the Oman radiography practice.

Radiographers, however, had high expectations of the OAR. They wanted the association to raise the standards of radiography by providing courses and evaluating radiographers’ practice, as indicated by PS11:

“I would like to have a say about things. You know, they [OAR founders] formed an association, but I didn't really feel it has any role. I would like for

them to provide a course for us, make exams now and then to check our levels and improve ourselves.” (PS11)

Radiographers in one particular region attempted to establish their own association with other allied health professionals which suggests that they have the capabilities and could have supported the OAR with their ideas and efforts. Their efforts failed, however, because the burden of the work was on just one individual.

“I remember that in an attempt to make an identity for the department, I met the employees of the department outside. It was like a working meeting. We tried to discuss the idea of forming an association in (a region named), not just for the radiographers but also for the allied health services. We sat together and I remember we had employees from the laboratory and physiotherapy department. We gathered twice and discussed the matter then we stopped. It is always the same problem: depending on a person rather than a system. No one can work alone.” (PS18)

Highly competent expatriate radiographers face challenges working in institutions where the profession is not well structured and where they face resistance to making changes or improvements. They may face problems in renewing their contract.

“She [an expatriate radiologist who was the head of department] wanted the department to have its identity. Unfortunately, the administration was not cooperative and was against that. There was a conflict with the administration. She stayed for about a year and they did not renew her contract. So, she had to go back home. Honestly, she tried to change the department and make it organised, but I guess the institution was not ready for such a change.” (PS18)

In September 2015, however, the OAR was dissolved by a ministerial decree due to its inability to achieve its objectives (Oman Daily: 8 September 2015).

4.3.2. The Absence of a Regulatory Body in Radiography

The supporting evidence from contextual materials and narratives of the participants did not identify any policies, guidelines or standards that govern the day-to-day practice of radiographers, the use of medical radiation, scope of practice, extended roles, continued professional development, grievance procedures or policies relevant to patients and their information. There is no system available to the radiographers to develop and improve their professional competencies. Radiographers are left alone with their practice, as described in the statement by PS06:

“We told them, someone had to come and evaluate us even if it was once a year, or give us a week’s refresher course or something.” (PS06)

This suggests that, during its short existence, the OAR did not have an effective role in promoting the profession. It failed to recognise the importance of developing professional regulations, standards, a scope of practice and competency frameworks for radiographers. The impact of this ineffectiveness is evident in the level of retention of expatriate experts in the country (see page 106, paragraph 3), the socialisation of the radiographers, the reported lack of supporting resources and structures, and professional attitudes to joining the OAR.

Summary

The accomplishment of socialisation is affected by the way in which organisations socialise their newcomers (Saks & Ashforth, 1997). The availability of accurate information and resources in the workplace has a positive effect on the work environment and socialisation process (Gronroos and Pajukari, 2009). The findings presented in this chapter reveal that Omani radiographers are not governed by appropriate occupational regulations and systems, and that there is a lack of a professional body, standards and regulations. There is also an absence of job descriptions, effective tools to measure radiographers' performance, and regular mechanisms to provide radiographers constructive feedback.

In the UK, regulations are established to ensure public safety by ensuring that only individuals who meet appropriate standards of education, training, professional skills, behaviour and health are fit to practice. This is achieved by a statutory regulator (HCPC) holding registers that scrutinise and oversee the professional regulations that provide the professional standards (NHS Employers, 2017). As evident from these findings, the Ministry of Civil Services and then the MoH hold the role of the statutory regulations. They set the regulations that govern all practitioners as employees in the government sector. The MoH laws (2014) assigned the competent authorities with responsibility for issuance of regulations commensurate with the nature of their work such as job descriptions and performance appraisals.

Until 2014, the MoH followed the civil services regulations but was deficient in developing the job descriptions and performance appraisals commensurate with the nature of different professions in the health organisation.

To ensure some control over fitness to practice, however, the MoH has its own licensing committee. Radiographers graduating from the Institute of Health Sciences (one of the MoH health education institutions) are employed immediately after completing their professional training. Radiographer graduates from abroad

undergo a licensing procedure which is based on a personal interview in the MoH. Upon recruitment, Omani graduates lack an important source of information that can support their professional career path. As revealed from the study, graduates start their occupations without job descriptions to clarify their roles, nor with regulations to guide them to the accepted values and behaviours.

As is evident from the literature, the regulations, standards and values impact on the employees' adjustments during their series of transitions from one role to another, and on the process of formulating their professional identity. Roles are settled by rules (Saks and Gruman, 2011) and regulations and policies are drivers for shaping behaviours and values and clarifying role expectations. They are tactics imposed to unify the responses of professionals (van Maanen and Schein, 1977). Their absence in the Omani Health system creates lack of role clarity and delays the integration process of newcomers. They also leave novices with no information about what is expected from them and what their boundaries are, which is implicit for the novices socialisation. The absence of guiding regulations and job descriptions creates a gap in the transition process and facilitates individuality, which may result in poor professional socialisation (ibid). Individuality can itself lead to the acquisition of negative attitudes (Rejon and Watts, 2013), thus affecting work environment, quality of work, and employees' satisfaction and retention (Nikic et al., 2008; Leong and Crossman, 2015).

These findings also showed that radiography in Oman has never been supported with professional regulations. Health regulatory bodies are required to set professional standards to define legally permissible boundaries and the scope of professionals' practices (Haas-Wilson, 1992), and these standards, skills and policies will contribute to shaping the behaviours and identity of the profession's members (Saks and Gruman, 2011; Lai and Pek, 2012). Professional standards and scope of practice are developed in professions that are regulated by professional bodies such as in the UK, Canada and Australia. The OAR in Oman is not regulated by a health professional body. Therefore, during its short existence, it failed to develop regulations, standards, policies or structures to guide and support radiography practice. Professional regulations, standards and guidelines are essential to create

systems of common experiences that are produced and reproduced through professional socialisation. They create a culture of defined behaviours, values and norms that will facilitate newcomers to internalise the normative values of the profession which result in the shared professional identity of its members (Evetts, 2006). Literature reports that professional bodies and regulations facilitate professional power and ensure professionals' fitness to practice, facilitate autonomy and prevent other professionals from interference in its affairs (Corfield, 2000; Haas-Wilson, 1992). Therefore, radiography in Oman does not have the privilege of professional power that facilitates the control of professional practice and culture. This raises a question; who holds the power of the radiographers and radiography practice? The findings in the upcoming chapter on the radiography culture in Oman may provide an answer.

The context therefore suggests that the lack of structures and systems to support Omani radiographers and determine the scope and standards of radiography practice have a negative impact on the professional socialisation of Omani radiographers, and suggest that Omani radiographers professionally socialise by default.

Chapter Five: Radiography Culture and Working Life in Oman

This chapter presents the findings from the analysis of interview transcripts and Field notes, and tells the participants' story of professional working life. It presents the impact of the lack of regulations and structure on the participants and the radiography culture.

5.1. Job descriptions, role responsibilities and recognised duties

The findings indicate vague and unclear career structures for radiographers. There is confusion between professional positions and administrative positions within radiology departments. Several job titles were created for different levels of practice and yet do not have official recognition. For example, radiographers are found to perform tasks and hold unofficial titles generated internally within their workplace alongside their professional status, as in the cases of PS03 and PS12 who were assigned as deputies to chief radiographers in their department:

"Somebody was leaving, and I was just told that I am going to be the deputy."

"It is only departmental. It is not official." (PS03)

"At that time [selection time], there was a radiographer that was causing problems in the department, and he was supposed to be the second in charge [lead radiographer]. He was excluded from the post. I was the next in line, so they made me the second in charge [deputy]." (PS12)

PS05 gradually experienced a role transition from a radiographer to a deputy and then to a chief radiographer in his latest institution. None of these positions were supported with written job descriptions or guidelines on his tasks.

“Interviewer: I do not mean that. I mean when they knew that (person named) was leaving and you would replace her, did they prepare or try to qualify you? Do you have a job description?”

Interviewee: No, I do not.

Interviewer: What about when you were a radiographer?”

Interviewee: I was a deputy.

Interviewer: No, I mean a paper that identifies your tasks as a radiographer or as a chief?”

Interviewee: No.” (PS05)

A radiation protection officer (RPO) is another unofficial title that is not supported by training, policies or guidelines. PS04 had a local demonstration at his institution to support him in this role:

“Currently, I am the radiation protection officer in the department. (Paused) I take care of the equipment and TLDs (Thermo-luminescent Dosimeters) ... I did not attend a training course, but this was demonstrated to me by our supervisor. (Paused) He showed me on the computer system how to register the received TLDs. ... Yes, he also showed me the procedure of sending TLDs to the ministry.” (PS04)

In addition, some radiographers were assigned as radiation protection supervisors (RPS).

“At that time, the ministry was seeking a radiation protection supervisor for each individual region. I was contacted by Dr (a person named) the radiation protection advisor in the ministry and he informed me about this. I told him that (a person named) should be the one for this. He refused and said that you were nominated as radiation protection supervisor for the area by the ministry. I accepted. Then we met at the ministry, and they informed us of our duties and responsibilities. The duties included supervising the machines in all the region’s hospitals and health centres, and writing the

corresponding reports. In case there are delays in the TLDs (Thermo-luminescent Dosimeter) or anything else, they have to contact you to take action. We have annual meetings in the ministry, and we have to attend. You receive reports on TLDs and work of various hospitals and health centres. We follow up everything. Lately, not all TLDs go back to the ministry for monitoring. Some get lost or something else. Now there is a penalty of 10 Rials [£19 as checked on the 04.01.2018] for every TLD lost.” (PS12)

5.1.1. Job descriptions

The findings from the data revealed that radiographers in the MoH institutions have always functioned without job descriptions, as pointed by PS02 and PS18 when they were asked if they had a job description:

“No, I do not have such a thing. This is Oman. Welcome to Oman.” PS02

“We asked at the ministry, but they said that there was no such thing for the radiographers.” (PS18)

Some radiographers were found to be unclear as to the purposes and advantages of job descriptions

“No. I already knew my responsibilities and my tasks.” (PS16)

The term "job description" is not recognised by many radiographers in the MoH. The term is confused with another term 'job title'. An example is found in the reply of PS01 when he was asked about his job description:

“What do you mean? Like a paper?” (PS11)

" ..., the supervisor of the x-ray department." (PS13)

The concept of the job description is confused with a list of duties assigned to a particular area even when the term 'job description' was clarified during the interviews, as in the case of PS01.

"... It is hanging on the notice board in the department. ... For example, radiographers' duties in the Angiography room, nurses' duty in CT room... what is required from her to do first thing in the morning, such as checking the crash trolley. When I come in the morning and what I should do as a radiographer; review all the equipment, and ensure the readiness of instruments, cannula, to start the X-ray and all equipment." (PS01)

The Directorate General of Health Affairs in Muscat, the capital area of Oman, issued a document in 2006 that specifies the recognised role responsibilities associated with radiography practice, as explained by PS06:

"The quality officials distributed some booklets to us, in which a description for each job was specified ... I think in 2006." (PS06)

Although role responsibilities clarified for the radiographers in smaller institutions, radiographers were found to be performing other tasks such as administrative work at the institutional level, as was evident from the case of PS06:

"I would just help them, in typing for example. The doctor was not just responsible for patients, so sometimes he would ask me to type and copy something for him."

"The doctor who was in-charge [manager] then asked me to be responsible for employees' files. He asked me to add any necessary papers to the files; if they asked me. And he told me that they were confidential. He told me that I would keep them with me and would bring them if they are needed. Some of those files were confidential. I was holding the key, and I was familiar with confidential documents." (PS06)

Also, radiographers were obliged to carry out tasks outside the scope of the recognised role responsibilities, as evident from the experience of the participant PS06.

"So when they asked us to do the course, I told them that I did not want to because I did not like the ultrasound. I was not interested. But they told us it was a decision from the directorate, so we had to do it." (PS06)

The role responsibilities set for radiographers were not enough to support them. Ignorance of the importance of the job descriptions leads to exploitation and dominance of organisational authority without attempting to debate the rights impinged in performing additional tasks, as the case of PS06.

"We were afraid, so we did the course." (PS06)

Some radiographers, indeed, felt that they have been experiencing oppression as a result of the absence of a job description.

"I did not know my duties or rights for years. I feel that I had been oppressed at that time. I did not know my rights." (PS09)

In some cases, this has led to the exploitation of radiographers with them having to work excessively long hours. In some of the cases, it was 24/7 hours, as in the case of PS08. During on-call hours radiographers spend their time in restricted conditions where the employees are standby for any on-call from their institutions. They do not have the freedom to socialise or to commit themselves to other plans. They must remain within minutes or miles of their institutions.

"It was extremely difficult. I would work from the morning until the afternoon. Then I was on-call 24/7, during weekends, holidays, feasts. I was on-call all the time. It was torture." (PS08)

A few radiographers reported the same experience (PS09 and PS05). PS05 for example had to cover for a radiographer in a different region but in the same province who works 24/7 hours:

"Oh, yes, I remember now. I covered for two or three days before. I covered at the health centre of (a village named). The problem at the health centre there was that they only had one radiographer. He could not go anywhere. He would work in the morning and would also be on-call. He could not go from (a city named) to (hospital named). Sometimes they called him for finger or foot x-ray!

Interviewer: At any time?

Interviewee: Yes.

Interviewer: For 24 hours?

Interviewee: Yes, even on the weekends, he could not go anywhere. He only had Friday off and he was still on-call. I spoke to him, and he said that he could not go anywhere." (PS05)

Radiographers are recruited on the basis of patient throughput in the x-ray department regardless of whether the institution offers radiography services 24/7 hours.

"Moreover, the policies or the working mechanism that was applied when applying for additional staffing... for example, let's assume that an administrative director or a director of the health affairs requests for an extra radiographer for (an institution named). The first thing is checked is the workload they have; do they really have a heavy workload? Let us say we found that they only receive about 1000 patients a year. That is about two or

three patients a day. Why would they need an extra employee? This is what happens." (The senior radiographer)

The absence of official and standard job descriptions for radiographers in the MoH therefore opens up opportunities to impose additional tasks whenever authorities need somebody to perform the task. For example, a Directorate in one of the regions created a set of duties associated with everyday radiography practice in primary HC. In one stage, it attempted to change them based on its need to force female radiographers to perform ultrasound procedures, as explained by PS06:

"..., they tried to add the ultrasound to our job description." (PS06)

"They wanted to add it. But what helped us was that it would be added to the job descriptions of all the radiographers in Oman, not just in Muscat. ...This is the job description of the primary healthcare. It is different from the others of course. It was hung here. When we demanded those things from the directorate, they sent us another document. It said that any scans asked for by the doctors were a part of our job. That was not right! This is x-ray, and that is ultrasound! It is completely different. (She laughs)." (PS06)

In some regions, radiographers were required to sign a document to comply with the orders of the Directorate and not cause any problems when they are asked to cover tasks and duties.

"At the polyclinic, they told me that I was going to work with them and I signed one paper. But I found some difficulty at the Directorate. They told me I had to be there any time they want me to cover and that I should go wherever my distribution said. They told me that I should not be an obstacle for them or cause any problems and so on." (PS09)

The absence of job descriptions opens up suggestion of managerial hegemony and power, not only in radiography, but it can be easily generalised to other professionals because they also perform under the authority of those Directorates.

The findings indicated that job descriptions are useful tools when problems emerge, as disclosed by the radiography official.

“The thing with the job description is the radiographers as well as the administration tried to use it in the time of disagreement. When there are no problems, nobody pays much attention to it. The radiographers had three demands, and I agreed with them on 2. The first one was the job description. The second, they requested guidelines. All of this is okay. Their third demand was: We want an allowance.” (The senior radiographer)

The absence of a job description for radiographers can lead to the exploitation of the situation by one of the parties. For example, radiographers were forced to attend training courses to learn additional skills, primarily because the authority could not grant training for the doctors, as explained by PS06:

“Interviewee: It was because in the Directorate General said we did not have much to do: Just x-raying. They considered it [performing ultrasound] as part of imaging, and it is our job. They coordinated with the University Hospital for the course. The University Hospital replied: If you like we will give the course to the radiographers, not the doctors.

Interviewer: They were originally giving the [ultrasound] course to the doctors?

Interviewee: No. What I understood from the professor at the meeting he held when we first went there was that the directorate asked them to train the doctors, but they refused. They said they would train the radiographers if they needed them to be trained.” (PS06)

"I refused in the beginning, but the director of the centre told me that it was a decision from the directorate and I had to go." (PS06)

Radiographers were found to be controlled by others and assigned to perform skills that are not related to radiography. That case indicates that radiographers do not hold the power in their profession and are incapable of rejecting imposed tasks that are unrelated to radiography.

"The path of improving in the field of radiology is known. After the general x-ray, you move to ultrasound or MRI. There was no room for such improvement. There was only one general x-ray room, and that's it. Also, the ECG [Electrocardiogram] was not the job of the radiographer. Apparently, there was no one else to do it, so they just put it in the x-ray room and made the radiographer do it. I did not like that. I felt that they did not respect the job." (PS18)

The results also suggested a repression of radiographers. This is evident in the experience of radiographers who were performing obstetric ultrasound as an additional task to their Role responsibilities, as explained by PS06.

"The allowance was the last thing we demanded. The most important thing for us was further studies, higher degrees. However, there were always obstacles for every request we made. Then, we requested the appointment of at least two staff members for each health centre: one for the x-ray and one for the ultrasound." (PS06)

"..., we told them that they could give us an extra course then a diploma certificate, but they refused." (PS06)

This repression affects professional behaviours as well as the relationship between radiographers and management. Radiographers reached a stage where they

threatened the management to stop practising ultrasound if they were not trained and paid for it.

“Well, as I told you that a year ago, in that meeting, we threatened them.”

(PS06)

The persistence of repression extended to a point to involving legal force, as stated by PS06.

“A month later, they held another meeting with us and asked us why we stopped. There was a legal officer in the meeting.” (PS06)

Thus, the ambiguity over the job descriptions affected radiographers' psychologically and generated job dissatisfaction. The impact was also seen on the service and patients.

“I was not that busy. I could do ultrasound, but I felt that they suppressed us with everything they said. I told them that I did not want more money or anything, I just wanted to do the ultrasound and someone else would do the general radiography, so that everyone would focus on one thing. I do not mind doing eight patients in one day; I liked doing ultrasound a lot. However, the directorate did not support us. I told them that it was not in our duties to do ultrasound, but we agreed anyway.” (PS06)

“We were doing ultrasound which was not in our duties. We have been asking for allowance for years, as we are doing an extra job. ... To be honest, they broke my heart. I felt that I did not want to work on ultrasound anymore. When my colleagues ask me to do an ultrasound scan on them, I do it, but not for patients anymore. Unless they make changes, like giving us a certificate or offering us a study or something. But I do not work in the same manner.” (PS06)

This situation also had significant impact on the service and on patients since the ultrasound practising radiographers went on strike. Pregnant women missed their scheduled ultrasound scans. Some cases were critical as experienced by PS01 as a parent:

"..., there are sonographers especially for pregnant ladies (paused) obstetric; they do not do the ultrasound on other cases. I do not think that they were trained to relieve pressure on doctors. Even recently they demonstrated by going on strike, at the time I was expecting a baby. My wife attended the health centre, the sonographer was present and refused to do the ultrasound because they were on strike. In her following appointment at a polyclinic, they told her: You reached a serious stage. Why you were not informed? She replied that she did not have the ultrasound scan because of the strike. Because they were demonstrating for allowance and grade. They were in the same grade as ordinary radiographers. They were not distinguished." (PS01)

The absence of a job description also allows radiographers at any level to refuse some assigned tasks.

"The new employees as well as the old ones got to a point where they said some tasks were not part of their job." (PS18)

Although some institutions developed their own job descriptions, they do not have official status, so managers are impotent when radiographers refuse the work on a given task.

"I think we are following it internally, but if an employee refused to do something for example or said that it was not his job, there is no way for me to say it is his job. It is not an official paper; it is just something we are applying internally." (PS18)

5.1.2. Role Ambiguity

Radiographers at different levels were found to be unaware of their precise role and responsibilities, such as radiographers in supervisory and management positions, where the expectation is to guide radiographers working under their supervision in best practice. This is evident from the statement of PS01 when he was confronting his supervisor.

"Several times the manager called us only if we have done something wrong. If a mistake is made, she called us and says: 'You have done this'. It happened that I said to the manager: You are pointing out only mistakes. It is the duty of the in-charge [radiographer] to advise staff and recommend improvements." (PS01)

At radiographer level and in the absence of job descriptions, participants were found to learn their role by practising and asking questions of their colleagues, which suggests that radiographers learn their roles by default. This indicates that novice radiographers undergo negative socialisation in the light of the absence of important structure that clarifies their roles and shapes their behaviours and attitudes.

"I did not learn from the job description; I found out from communicating and practising. When I came to CT, no one told me about a job description: You are required to do this and this. No, this does not exist." (PS01)

"At first, I worked in room 6 in the general; I used to see them working and would ask questions. They answered my questions and demonstrated how to use machines." (PS02)

Radiographers were found to carry out tasks at an institutional level, such as managing and running radiography departments in extended primary care institutions without the recognition of official positions.

"Earlier we did not have an inventory system. Now we do. I keep a record of what we have, what we consume every day and of the shortages. Now I design the annual leave plan for the year to come. I also attend meetings. I created a patient appointment program on the computer. I organise appointments for the ultrasound." (PS13)

"I am the main person dealing with CPD. ... I started this in 2008. The CPD was handled by one person only, but it was too much for her. So she asked for someone to help her. So, Doctor (Person named) asked me to be responsible for staff development with the other doctor. ... She explained the responsibilities to me; organising the CPD activities in the health centre and being responsible for the workshops and conference nominations, in collaboration with the administration. Sometimes, I organise workshops in the health centre. The health education in the ministry usually organises workshops as we help them." (PS06)

Also, radiographers were found to be denied their basic rights when they requested compensation for undertaking additional tasks outside the scope of their practice.

"These days, they [The MoH authorities] were setting the health regulations, so I thought to myself that I had to do something and get an official job title as the head of the department, to get the raise. That was about 200 Omani Rials [per month] [approx. £390 rate calculated on 21.12.17]. So I said why not get the money if I am already running the department? In the beginning, I did not care, but that money would make a big difference for me. They [The regional Directorate] did not reply for a month or a month and a half. I went to meet the Director General. He told me that clinics do not have titles like the head of the department, as the whole Polyclinic is considered a department affiliated to the Directorate. He showed me the response of the Directorate and that they refused." (PS13)

In summary, the findings from the data revealed the absence of job descriptions in the MoH and that radiographers are confused by the term 'job title' and the list of duties for a particular area. It also indicates that radiographers are unaware of their precise roles and responsibilities. Some regional authorities created their own job descriptions for their radiographers or made radiographers sign pledge documents to obey their orders. As a result, radiographers were found to perform tasks that are not always related to the radiography profession, and are being oppressed and exploited in the way this is managed. The absence of job descriptions was found to have an effect on the job satisfaction, professional behaviours and delivery of the radiography services. There is evidence of individualism and that radiographers learn their roles by default. These findings suggest a negative professional socialisation of Omani radiographers. The findings also suggest that, if in place, job descriptions could be useful tools to facilitate professional socialisation, professional practice and career pathways within radiography.

5.2. Orientation Programmes for New Radiographers

The study revealed a planned, structured and documented internship programme with its own policies, guidelines and evaluation procedures. It is designed and monitored by the Institute of Health Sciences (IHS), one of the MoH's health educational institutions, and specifically for its graduates. Graduates from abroad do not undergo the internship programme.

The internship programme is monitored by the IHS. A member of the institution would visit the interns and supervise their progression, as explained by PS06.

"Sometimes Miss (a person named), the head of the radiography programme, would come and ask us about the difficulties we were facing. Sometimes, an intern could have problems with one of the staff members or the administration." (PS06)

Interns are attached to expert radiographers to learn the role of a radiographer.

"We worked under the supervision of somebody during the internship."

(PS03)

At the end of each posting reports are prepared on the performance of the interns and sent to the training institution, as stated by PS06.

"... the department's in-charge would write something like a report. He won't give us the report, but he would tell us about our strengths and weaknesses.

... The report is then sent to the Institute." (PS06)

During the internship period, interns visit several hospitals and work under the supervision of senior radiographers, gaining experience in various radiographic procedures and technologies. This transaction promotes confidence building as well as developing professional competencies on procedures and technology. The role of expert radiographers is noted as supervising practice instead of acting as mentors, as illustrated by PS04.

"This has improved our confidence so that we can practice after the internship without any problems. The second hospital during the internship we were in (hospital named). It was a big hospital ... we learned about mobile radiography and a lot of barium meal and barium enema cases. I really benefited from this experience. I learned how to mix contrast ... and we could carry out the examinations ourselves independently. We also gained experience in emergency radiography. The last hospital in my internship was the (hospital named). It was also a big hospital. In this hospital, I worked in all the sections of radiography. They used to have lots of mobiles cases daily. We used to accompany radiographers to do mobile cases during the morning shift and the afternoon shifts. In some instances, we use to do it independently because they trusted us and saw that we take

responsibilities. So, they allowed us to do mobile cases unsupervised and independently. It was really good that we worked independently, we learned to overcome difficulties ... it built our confidence, our way of thinking and to act on difficult cases. So, after the internship, we felt more confident.” (PS04)

Institutions allocate responsibilities to internees in the same way that tasks are assigned to qualified radiographers, as pointed out by PS04.

“They gave us responsibilities like qualified radiographers... we worked like any qualified radiographer.” (PS04)

Interns were given opportunities to work independently managing cases and rooms, as explained by PS03.

“During the internship, I was under supervision. Of course, they let me work independently, but there was somebody with me in the room, I was not alone, except on the days that there was a shortage of staff. I was given opportunities to work independently in the room. I felt the work was easy during that period, it was not difficult for me.” (PS03)

Interns were gradually introduced to all shift duties, as appointed by PS06.

“First, the morning shift then, the afternoon shift then the night shift.” (PS06)

After the internship, newly qualified radiographers joined their working institutions. The findings indicate different management strategies employed in the MoH institutions. Some institutions orient their newcomers with policies and facilities in place.

“On the second day, yes. We [new radiographers] had a meeting with the supervisor and the radiologist in which they introduced us to the policies. Then, we had another meeting with the all newly recruited staff from nursing

and other departments. It was a full day meeting. They [hospital authorities] told us about the policies of the hospital too. Then, I think on the third day, we had a meeting with the director of the hospital and the director of the finance and administration affairs so that we know our rights. It took about an hour; then we went back. They informed us about the library and other things.” (PS14)

“The administration and the departments as well. I already had a previous idea about the hospital. We visited the departments and the wards, and they introduced us to the staff. We went to meet the administration [staff], and we met with the Executive Director. He was from (a region named) as well, so he knew me. He talked to me about work.” (PS12)

Other institutions, including those in the capital area, do not offer orientation programmes to their newcomers for the reason that they were students who were trained there, so there is an expectation that they are familiar with the working environment.

“... there was nothing prepared for my orientation. They [departmental managers] know we are students, interns, or a new employee, and therefore, assume that as new radiographers who have been trained in this hospital, we know the department, the rooms, and equipment. It was an ordinary reception; the only difference was I wore a hospital uniform instead of a student uniform. This was the beginning in the department.” (PS01)

International graduates also did not receive an induction programme, as experienced by PS18.

“... when I first went there, there was no one to guide me or tell me what was expected from me. I just went, signed the contract and started working.

What was I expected to do? What were the things I was evaluated for? None of that was clear. The environment of the hospital was new to me. I had not been there for years. It was strange for me. When I first went there, no one took me on tour, showed me around the departments or introduced me to the employees. I just started working, and that was it. That is why I felt out of place. I tried to adapt, learn more about the department and the mechanism of work.” (PS18)

Rule and policies in place in the institutions were not always communicated to newcomers.

“They told us that we already knew about these [rules and policies] things, and that we could ask if we had any questions.” (PS19)

The data does, however, reveal an undocumented but structured induction period for new radiographers to different radiographic sections, duties, and modalities within their institutions. The period of induction was found to vary between institutions and individuals. The bigger institutions with various imaging modalities and sections tend to have a prolonged induction period. For example, PS01, who was appointed in a tertiary institution, spent a whole year working in the general section performing general radiographic procedures. The following year, he was introduced to radiographic contrast procedures then the Computerised Tomography (CT). It is obvious from his experience that he went through stages to develop his professional competencies, starting with general radiographic procedures, followed with contrast procedures, then procedures of advanced modality:

“... because for a period of one year, I was working in the general section where we do chest, abdomen, and extremities.... but when I moved to Fluoroscopy, IVU.. After the Fluoroscopy, I worked in a rotation (paused)

fluoroscopy, general, fluoroscopy, general. ... After that, they told me: You would start work at C.T." (PS01)

PS14 was appointed in a secondary institution and worked three months in the conventional radiography section before he was assigned to radiographic contrast procedures and CT.

"After three months, they put me in the contrast procedures room and the CT scan. My colleague started that before me because he came here about two weeks before me. After he had finished his period on the general x-ray, they put him on the procedures and the CT scans." (PS14)

Data also suggests that young radiographers often experience reality shock (Bartlett et al., 2009; Kramer et al., 2013; Bisholt, 2012; Lia and Lim, 2012; Leong and Crossman, 2015). This was the case for PS01, who was shocked with his lack of professional knowledge and competencies when he moved from performing basic procedures to conducting radiographic contrast examinations where a higher level of cognition and skills are required. The shock was perceived as a result of the gap between theory and practice.

"When I integrated with my work and started working in the IVU room and other sections of the department, I felt remorseful. I felt that there were things I did not take seriously in my studies. Now I face things at work that if I had paid attention, I would not find difficulties". (PS01)

The reality shock was also a result of working in an unfamiliar culture. The impact of the shock was emotional for some radiographers.

"I graduated and then moved to Oman. I experienced working in the (country named) hospitals. When I moved back to Oman, I found the life a bit strange. I felt I was not used to the people here and their culture ... neither the hospital nor the staff. I felt everything was new to me. ... The first two days, I use to go back home and cry..." (PS02)

Values and behaviours in the working culture were also the sources of a reality shock for new graduates. PS14's narrative also raises concerns about the effectiveness of the management.

"It happened in the internship [in the operating theatre] but in a different way. ... The radiographer there told me that he would go for five minutes and come back. ... During the surgery! I asked him where he was going, but he did not answer. I thought he was going to smoke or something; I do not want to say anything bad about him. The surgery was finished, so I was taking the machine outside. The surgeon stopped me and told me that there was another surgery. I told him I was an intern, but he insisted that I stayed and said it would be just 15 minutes. I thought 15 minutes is not an issue: Okay. All of that time, the radiographer did not come back. After that surgery had been finished, I went out of the OT straight to the supervisor. ... Yes, 1:45 exactly. [Voice raise] I was very upset. I went to the supervisor and just entered his office. He told me that I should have knocked the door; I told him I was too mad. I told him that he had 20 employees in the morning and by the time it was 10:30, there were only 10. Where do they go? I asked. I asked him where the OT radiographer was; he said that he was in the OT room. I told him that was not true and that I had been there alone since 10:30 a.m. They kept searching for him, but they did not find him." (PS14)

The findings further disclosed the absence of mentorship in radiography.

"When I first went there, no one took me on tour, showed me around the departments or introduced me to the employees. I just started working, and

that was it. That is why I felt out of place. I tried to adapt, learn more about the department and the mechanism of work.” (PS18)

Radiographers often work alone to cope with their challenges.

“I was happy to work, but I got to a stage when I regretted the time wasted and the lessons I neglected. I realised my mistake and started reading the books I studied at the Institute. I asked a student to bring me some study books, which I kept for a while. These were the same radiography and anatomy books we studied at the Institute, as well as lecture notes. I read them after working hours as I did not have any family commitments.” (PS01)

“This was my first issue ... I didn't find people that I can talk to. I cannot really talk about my issues and problems. Then I decided I have to cope with this hospital ... most of them are Indians and no girls ... there were female radiographers in the department, but they were older ... they were not talking to me because they have responsibilities. Slowly I started to accept this... this is the hospital where I'm working and have to accept it and continue with my life. So I started to communicate with Indian radiographers because at the end ... I need to know about my work ... I need to know what they are doing.” (PS02)

“Yes, no one told me to do that. The employees there knew that I had studied abroad so they expected that I would be able to figure out everything myself. They expected that I would be able to shoulder the responsibility and take care of the work myself. So they left me alone in the beginning. That was not good.” (PS18)

These findings indicated that the newcomers who did not receive orientation experienced delayed professional socialisation and integration into their workplace.

“Until the second year they believed I was a trainee. A whole year they thought I was a trainee.” (PS01)

In summary, the study revealed a transition process of two stages for local graduates during which they transformed from being students to being radiographers. In the first stage, local graduates underwent a structured internship programme in which they were attached to expert radiographers and evaluated by the professional training programme. The second stage is undocumented but involved a structured induction that took place in their assigned institutions. Graduates from abroad do not undergo internship programme. The orientation procedures differ between the MoH institutions, however, with some institutions orienting their newcomers with available policies and facilities, and others not doing so. A lack of, or ineffective, orientation and mentorship programmes prolongs the integration of newcomers in their new environment, as they are left alone to face their challenges. The findings also show that workplace culture facilitates reality shock. More importantly, the study did not reveal a clear role for mentors and role models in the transition process of novice radiographers.

5.3. Performance Appraisal

Consistent with the Civil Service laws, all MoH radiographers' performance is evaluated every year. The evaluation method used is that primarily designed for general civil service roles.

The evaluation forms used to evaluate radiographers are standard forms and applied to other employees in the public sector. There was a perception from interviewees that the forms are not suitable for hands-on professions like radiography, as explained by PS03.

"I feel those forms are not practically suitable for us. There are five grades allocated for each statement. Our profession is more of practicality, and there is only one statement that is related to practical work [radiographic techniques and patient care], and it is only allocated 5 marks out of 100. When I appraise someone whose practical work is not up to the required level, he gets good grades from the other points. He only loses 5 marks out of 100. He gets 95. He does not deserve the mark. You feel that it is not designed properly." (PS03)

The findings from the data indicated that radiographers are asked to complete the employee's section in the appraisal forms without knowing what they are for, as explained by PS02.

"At the beginning of each year, they give us this form, and I even remember that the first time I signed it, I did not know what it was. I did not know that there is something called appraisal." (PS02)

The appraisal forms are handed over to the manager of the department and then become a confidential process. As indicated by PS03, a senior member of staff in her department, with nineteen years' experience and who is sometimes delegated the responsibilities of an in-charge, including evaluating staff.

"After that the things become confidential. The staff are not told about their grades." (PS03)

The forms are then completed by supervisors and sent away, as noted by PS02.

"... she [the manager] completes the forms and sends them straight away, without us seeing them." (PS02)

A head of department and a radiographer in-charge of radiology departments are involved in completing the appraisal system, as pointed by PS04.

"It is by the supervisor radiographer and the radiologist. They sit together and evaluate." (PS04)

Radiographers are not informed of the outcomes of the appraisal.

"The head of the department. She said she was not supposed to tell me. I needed to know in order to know whether or not I met the requirement."
(PS19)

The appraisers did not receive training in the appraisal system. Also, the results show that different radiography management in different institutions within the MoH differ in carrying out the procedures. For example, PS03 would give copies to her staff to rate themselves first and then, discuss and compare them with her scores:

"Before I complete it, I give it to the staff to rate themselves." (PS03)

The behaviour of the above participant indicates a conflict with the procedure. Direct supervisors, or those who complete the appraisal forms, believe that the radiographers should receive feedback on their reports. This behaviour and attitude towards the appraisal procedure was also noted in other MoH institutions. The appraiser this time is a medical professional who manages a health centre and evaluates the participant.

"They evaluate us on a number of points. They first give us the form to evaluate ourselves. How do we rate ourselves on those points? This takes place at the end of each year. She tells us: take a pen and evaluate yourselves. Each point is worth 15 marks. The evaluation is mainly on work discipline, punctuality, duties, your relationship with patients and

relationships with staff. These kinds of things. She gives us the forms by the end of the year. Then, she calls us and evaluates us based on our evaluation. Thank God, our evaluations are fine.” (PS07)

The finding revealed that, in a single institution, different professions implement the job appraisal policy differently. For example, nurses get to know their reports whereas radiographers in the same institution are not informed of their reports, as indicated by PS02 who has three years' experience and sounded eager to learn about her appraisal.

“No, it is different. Because I asked staff nurses who visit our department; they told me that they see their appraisals before signing. We do not. This is the way our in-charge [radiographer] does appraisals.” (PS02)

Also, the findings of the study indicate that those who are involved in appraising radiographers disagree with the idea of not informing radiographers about the outcomes of their annual report of employees. This was evident from a debate in a course attended by individuals involved in evaluating professionals, as pointed out by PS03 who participated in that course.

“No, I remember I attended a course, and there was a discussion on whether we should give the grades or not. If we give them the grades, they will argue about their grades: Why did I get this grade and why the others got a higher grade. There would be tension. On the other hand, if we gave them the grades, it would improve their performance.” (PS03)

Radiographers are not informed about their evaluation in spite it being a requirement for their future development. For example, a candidate should receive 80% or above to be entitled to apply for a scholarship. PS02 who submitted her application forms blindly, was rejected because she did not achieve that required score.

“So when I was told that I was rejected because of the appraisal, I was very disappointed. I think our superintendent was not paying attention to this. She was not aware of it.” (PS02)

Whereas PS19 insisted to know her score to ascertain that she can apply for scholarship.

“I asked the one in charge [lead radiographer] about my score because I wanted to be confident. She told me that I got above 80%. She said she could not tell me what my score was exactly, although I insisted.” (PS19)

It is also concluded from her narrative that supervisors are not aware of the importance of the appraisal report and its implications. In addition, the reports can be changed according to their needs regardless of the actual radiographer's performance.

In summary, the findings reveal wide variation in application and a largely ineffective system used to appraise radiographers' performance. The appraisal procedure is completed in a confidential manner away from the appraisee and is not associated with a meeting to discuss the outcomes. This leaves radiographers progressing in their career not knowing if they are progressing in the right direction or they need to work on their behaviours and competencies. The study suggests that the appraisal tool is used separately from its intended objective. It can be seen that this system of appraisal has a negative effect on the professional socialisation of radiographers since it does not facilitate, guide or motivate them to improve in their practice.

5.4. Payment

The findings from the data showed that radiographers working in tertiary institutions are generally dissatisfied with their wages. They are paid the same

salary as the radiographers in primary care institutions. The controversy lies in the difference between the nature of the work conducted by tertiary radiographers and primary care radiographers, as explained by PS05.

“Our financial situation is (pause) I mean it is good that we are taking care of patients and it is a humanitarian mission. But still, we have to think about ourselves. Our income was bad then. I remember that the salary was O.R. 475 [£912.37 checked on the 03.01.2018]. We were new and you may think it was a big amount. But it is not enough when you are married and when you need a house. I was not satisfied by the financial side. Also I had some small problems with the health centres. I had some colleagues who worked in health centres. They would tell me that they got the same salary, although I do CT scans and all the other things. I would get the same salary although (hospital named) is a big tertiary hospital. They would tell me that in health centres, they got the bonus while I did not. They did not mean to tease me by saying that, they were just comparing. That was the truth. That is because health centres are affiliated with the departments of the provinces. They would choose the staff members and they would organise lectures. So they deserved the bonus. Whereas I worked in a hospital, I do CT scans and I face bigger radiation doses and I had shifts and I would lift the patients. I had the same salary that those who only do plain x-rays, or chest or fingers x-ray got. Even if I did not object or say anything, inside I felt it was unfair. I would wonder how the hospital does not think or care about us like we cared about the patients! Why would not they give us any incentives?! I am not asking for 40 or 50 thousand; I mean even 40 or 50 Rials would make us feel appreciated. I would at least tell my friends who work in health centres that I get the bonus because I worked in a tertiary hospital. There was no such thing. I do not know if that was the responsibility of the department or the hospital itself. I do not know if the officials were not aware of the differences between those who work in hospitals and those who work in the primary healthcare institutions. This was one of the things that really bothered me.”
(PS05)

PS01 was also dissatisfied with the payment and made efforts to look for a job somewhere.

"I began to recall what I was told earlier; you're crazy to work in a hospital like this. There was a time I began to look for a job in another hospital or move to a polyclinic under the Ministry of Health, to avoid this headache and issues. And also that a radiographer working in a health centre would x-ray three or four patients compared with a radiographer who stands to x-ray patients from 7:00 am until 3:00 and receive the same salary. But after that, many things have changed and they enacted regulations for work. They promised us for other things. But till now this is not implemented." (PS01)

There are cases of experienced and competent radiographers who have moved from tertiary institutions to primary care institutions. PS05 and his colleague are examples:

"In 2012, I moved to (an institution named), thank God. At that time, one of the senior radiographers who worked in (hospital named) for 23 years decided to move from (hospital named). I do not want to talk about her, but she was with me at (an institution named). I tried to ask her about the reasons, but I felt that she almost moved for the same reasons I had. There was no appreciation from the Ministry or the administration of the hospital. She would exert so much effort, and the salary was not satisfying. She wanted to get a good salary. The most important thing I wanted was the peace of mind, and also getting a fair salary. I am a Muslim; I do not accept money that is earned undeserved or earned in vicious ways. I just wanted to get a salary that matches the effort exerted. So I moved in the middle of 2012 to (an institution named). To be honest, I do not know whether it was a step back or a step forward. I do not know. The head of the department at (hospital named) told me that I would only do chest and lumbar spine x-ray

for the rest of my life if I moved there! He asked me to stay and told me that things would get better over time. There was a colleague who worked on Intervention in (hospital named), I think they put him in my place, I do not know.” (PS05)

The findings also revealed that radiographers and their supervisors are unaware of the provisions of laws and guideline criteria for bonus nomination, as stated by PS05.

“I am new as an in-charge, so I do not know if there is a certain criterion for the bonus. But this is what I understood from my years of experience; that the diligent employee deserves an incentive bonus. The head of the department is the one to decide. At health centres, they are allowed to give incentives to four or five employees. It could be a radiographer, a clerk and a paramedic for example. Each institution is permitted to give a bonus for certain numbers of its employees.” (PS05)

“No, I do not know. But as I said, they told me: You should receive a bonus, but you cannot receive it because of this and that. It is the same with others; somebody might receive bonus and others might not. We do not know. It may be because of the annual appraisal grades; somebody’s is higher than another, I do not know. Or it is given to somebody to motivate him to work harder, I do not know.” (PS05)

Bonus procedures are confidential, and radiographers are not informed as to who receives the bonus at the end of the year. They come to know by guesswork when mail marked ‘confidential’ is dropped in the department, as indicated by PS03.

“When the hospital messenger brings them to the department. They are stamped with ‘Confidential’ on them, so we know it’s a bonus letter.

Especially when this happens at the beginning of the year, but everything is confidential.” (PS03)

The lack of transparency in the management generates curiosity and disquiet amongst radiographers. For example, staff members in a workplace are not informed of who has been selected to receive the end of the year bonus. The impact of this lack of transparency is seen on the radiographers’ behaviour. First, the candidate who received the bonus would hide the news and would not share it with colleagues. Second, the radiographers in the institution will find ways to find out who is the ‘lucky colleague’ as explained by PS01.

“Interviewee: No, no anyone knows until the end of the year, to the extent that the subject is a secret, and the people whom they name are repeated every year, trying to hide that they have received incentives and bonuses in order to avoid problems.

Interviewer: How did you know that?

Interviewee: We know through special ways.

Interviewer: What are these ways?

Interviewee: We have people in the financial section who inform us.” (PS01)

In relation to pay, the findings also reveal that there is exploitation of radiographers, when they are asked to work extra hours and sacrifice some of their leisure times, such as weekends, as indicated by PS02.

“I know it is a big thing, because she asked me in the interview if I was willing to stay till 3 or 4 o'clock afternoon to do the quality assurance for instance, or come at 7 o'clock in the morning or give up one weekend instead of going to (region named).” (PS02)

Exploitation is common in remote areas where some radiographers were put in a position of working extra-long hours. In some of the cases, it was 24/7 hours because they were the single radiographer in an institution. As in the case of

PS08 who has served radiography 24/7 hours for six years and was felt they were not fairly compensated.

“Interviewee: It was extremely difficult. I would work from the morning until the afternoon. Then I was on-call 24\7, during weekends, holidays, feasts. I was on-call all the time. It was torture.

Interviewer: For how long did the situation remain like that?

Interviewee: Six years.

Interviewer: Six years this way?

Interviewee: Yes.

Interviewer: You were on-call on weekends, official holidays and feasts?

Interviewee: All the time!

Interviewer: Was there a financial compensation?

Interviewee: There was, but it was calculated with hours. But I wasn't compensated for working on the weekend nor the official holidays. They gave us two days off every month.” (PS08)

PS05 had the same experience as he had to cover for a radiographer in a different region but in the same province who works 24/7 hours.

“Oh, yes, I remember now. I covered for two or three days before. I covered at the health centre of (a village named). The problem at the health centre there was that they only had one radiographer. He could not go anywhere. He would work in the morning and would also be on-call. He could not go from (a city named) to (hospital named). Sometimes they called him for finger or foot x-ray! ” (PS05)

The senior radiographer explained the difficulty in sending radiographers to cover and support the radiographers in the remote areas.

"This is something exceptional as places like (an institution named) and (an institution named) are remote areas and far from the city centre. So it is difficult to send more people to cover up." (The senior radiographer)

Although the senior radiographer confirmed the availability of an official document stating that the radiography service in HC is for five days a week on morning duties only, he indicated that the Directorate Generals are given the authority to make the best utilisation of resources. In this context, extending the radiography services to include after working hours meant radiographers have to be available for the service. It is worth noting, however, that the participants served the 24/7 in hospitals, not HC.

"However, the framework and the premier healthcare said: We cannot provide [radiographers] for 24hrs, we provided a radiographer for five days a week and morning shifts only. I have that letter. It is written that the premier healthcare centres should only be open in the morning, five days a week. But some institutions don't apply that. ... I think the ministry has given the General Director of the regions the authority of "Best Utilisation" of these institutions as we call it." (The senior radiographer)

On the other hand, recruiting additional radiographers is based on the patient throughput rate, as explained by the senior radiographer.

"This problem was referred to me, so I said I had no problem sending more radiographers; but I have to see the workload first. It has to be justified." (The senior radiographer)

Solving radiographers' problems often happens accidentally and they have to take opportunities when they can, as in the case of PS09.

“The undersecretary came here once, and he passed by the x-ray room. I told him that I needed to talk to him. He said he would finish his tour and come to me. I told him that I wanted to talk to him alone. He agreed. The one who transferred me arbitrarily to (an institution named) was with him. I told him that I wanted to talk to him alone. He said: Why cannot you speak; I am here! I said: that I wanted to talk to you alone. So he told the others to go out of the room. He was kind. I asked him how he worked. He said that he worked in the official working hours. I told him that I wanted to work in the official working hours like him, and asked him to transfer me to any place I could work in the official working hours only. He talked to them, and the situation changed soon after, an expatriate was appointed, and then another one.” (PS09)

5.5. Promotions

Consistent with the absence of universal job descriptions or role responsibilities, the study also found ambiguity in the promotion criteria for radiographers. It appears that officials do not communicate information to the radiographers.

“I remember that we asked the administration, the employees’ affairs department and the ministry. No one gave us a satisfactory answer. They would tell us that there were papers but they are not in force now. That was their answer. They would not show us any papers. That person could get the paper for personal reasons. When he got it, he was able to get the promotion. No one at the Ministry followed or paid attention to issues like the rules and the tasks.” (PS18)

The Ministry follows a system of collective promotions according to the year of appointment.

“It was a routine promotion, like in all governmental institutions. It was by the years of experience. ... The class of the year so and so will be promoted to so and so. That is the system followed here.” (PS18)

However, radiographer titles can be adjusted on the request of departmental managers,

“It was until they decided they are going to give me bigger responsibilities. They wrote a letter to request a change in my professional title.” (PS03)

Promotion procedures for radiographers are carried out confidentially so as to avoid upset among radiography colleagues, as explained by PS03.

“To avoid any resentment in the department. There were seniors in the department, and there were who had the same experience as me, and there were also some who had less experience than me. They did not want any disturbance in the department, so they made the process confidential.” (PS03)

So far, the findings have highlighted ambiguity, lack of clarity and confusion in three main structures; wages, bonuses and promotions. Radiographer’s salaries are paid based on rigid financial grades based on recruitment, and fixed promotion systems, regardless of whether the radiographer was practising advanced and complex skills. The lack of transparency in the management of bonus and promotion procedures generated disquiet among radiographers, when these procedures could be better used as a means to motivate the employees. The results of the study revealed that these processes affected radiographers’ behaviours and job satisfaction and contributed to negative professional socialisation as a result of ineffective systems and lack of policies.

5.6. Continuous Professional Development, Training and Research

An important part of professional socialisation is immersion in the culture of CPD. Radiographers in Oman are required to update their knowledge by participating in CPD activities and collecting credit points every year. The findings revealed radiographers' lack of awareness of exactly how many points they are required to collect.

The CPD activities and accreditation system are governed by the CPD department in the Training and Education Directorate at the MoH. Regional directorates and hospitals organise CPD activities. As reported by the senior radiographer, there are a good number of CPD activities.

"Then we [CPD coordinators] moved to the Training and Education Directorate. Mr. (a person named) was in-charge of that. We all got together to work on the credit points, but not so long after that we started applying a decentralised system. ... So our [authorities'] knowledge on the CPD started spreading. There have been a lot of chances to attend CPD workshops lately. I remember that last year, we had a large number of CPD activities, such as in (a region named); in (a hospital named. Also in (the participant trying to recall) (a region named) if I remember correctly, and also in (a region named); in many regions. It is going well all over the country. There are good moves in CPDs, to be honest." (The senior radiographer)

The Oman Medical Specialty Board (OMSB) is the accreditation body which offers an online system for registering CPD activity, as explained by the senior radiographer.

"There is an online registrar. For example, you are a radiographer in (a hospital name), in the (a region) Directorate; you are supposed to work with the CPD coordinator. After you finished all the procedures of collecting the credit point from the OMSB (Oman Medical Specialty Board), you would be

enrolled in the system on which they announce the upcoming workshops and their dates.” (The senior radiographer)

At governorate and hospital level, there is a radiographer assigned as a continuous education (CE) coordinator who handles incoming events and organises departmental activities.

“There is a CPD coordinator in each governorate in every directorate: one person in a hospital.” (The senior radiographer)

“... I am responsible for the CE [Continuous Education] now. I am in-charge of it in the department. Whenever there is a workshop or a conference anywhere, I receive an e-mail, and I address it to the radiographers and see who would like to go. I take care of the procedures. If there was a presentation or something here, I address the staff development and tell them that we need to reserve the auditorium on that day, and I finish the procedures. Recently, we started making a schedule for the whole year. Every radiographer has to do a presentation on any subject they choose on radiology. We make the schedule so that a radiographer or two do presentations each month.” (PS10)

It is also apparent, however, that there is a lack of transparency or structure in announcing CPD activities;

“There is a kind of stagnation in the Ministry of Health. Well, not stagnation, but we do not know about these training [events] and courses. The senior employees know and seize the chance and go without telling us.” (PS15)

The senior radiographer indicated several problematic areas in relation to CPD. First, a deficiency in the CE coordinators:

“So usually the CPD coordinators would not inform the radiographers in their governorate, or they would inform them when it is too late to arrange the attendance.” (The senior radiographer)

Second, radiographers were found to be less committed to attend CPD events, as also indicated by the senior radiographer.

“I [the official] personally started to search for a sponsorship for workshops outside Oman. For example, last year ten radiographers attended workshops in Arab Health, and more than ten attended the year before. The problem is some of them would apologise one day before the workshop. It makes it very hard to search for a substitute because by then everything would be ready: the plane ticket, the hotel reservation, and everything. They get more than 180 Rials [£346 checked on the 03.01.2018] in the border areas to attend the workshops in Dubai. We [the authorities] give those who live in more distant regions about 200 [£384] to 240 Rials [£460 check on the 03.01.2018]. We beg them to attend.” (The senior radiographer)

Third, radiographers unwilling to sacrifice their leisure time to attend CPD activities.

“As for the lectures organised in Oman, we face other problems. For example, some employees refuse to go on weekends and want the lectures to be on working days. Secondly, they want to be home by 2.00 pm.” (The senior radiographer)

Finally, the radiographers requesting allowances for their CPD attendance

“.....they want an allowance for attending. They do not want to sacrifice anything. We need them to sacrifice a bit.” (The senior radiographer)

The findings suggest unregulated and chaotic CPD activities in radiography in Oman. It is evident from radiographers' narratives and behaviours that there is reckless attitude towards CPD which suggest that CPD is not mandatory in radiography. The research did not reveal any policies or structure that can be used to motivate radiographers to attend CPD events, apart from the performance appraisal system, which is itself subject the widespread variation. The study results raise questions about how Omani radiographers are actually accredited and monitored, and it is suggested that the CPD arrangements in Oman militate against the professional socialisation of Omani radiographers.

5.7. Role Extension

In the professional journey, professionals often acquire advanced competencies and move to perform more complex practices. The findings of this study showed radiographers performing procedures requiring advanced skills, and data from the transcripts revealed several tasks undertaken by radiographers as part of their extended roles or in addition to their professional duties. Radiographers working in institutions offering CT services practice intravenous cannulation and injection of radiographic contrast media after attending certified training:

"I inject because I had a course in cannulation, I insert a cannula." (PS02)

Some radiographers comment on radiographic images.

"Most doctors would come to discuss the images with me, and some doctors would not ask for my opinion. I did not go to them, but would just put a comment on the film. I got a training opportunity with a radiologist on Image interpretation in (hospital named) for two months." (PS13)

Some radiographers perform obstetric ultrasound.

“Indeed, they started the course, so the radiographers will be qualified to practice ultrasound for pregnant women.” (PS07)

The findings also indicated that radiographers have a readiness to accept training and practices to achieve their goals, as found with PS01:

“They are aware of this. But I do not know if there is a rule that they will take responsibility. The doctors in CT know that there are no nurses, and the radiographer cannulates and injects contrast. When I started CT and found that the staff inject contrast, I felt jealous. They sent me on a course. I learned the skill. I would like to learn everything so I can cover anyone's duty. That was the reason I was in CT for a long period.”

Although attending a course and fulfilling its requirements is considered a requisite for performing some skill such as cannulation (SCoR, 2011a), there are radiographers carrying out complex or advanced tasks without official training, as pointed out by PS02.

“In fact, there are people who were not sent to do this course and from their experience they cannulate better than thousands of staff nurse.” (PS02)

The findings revealed that radiographers are legally accountable for practising advanced skills, as illustrated by PS06.

“She taught us how to write a proper report because we were legally accountable.” (PS06)

Role extensions are not regulated by rules or policies.

“Unfortunately, there are no rules regulating our work ...” (PS07)

“We were stressed. Sometimes, there would be only one radiographer in the health centre and would do the ultrasound as well as our normal duties in radiography. We were like that for five years; without policies.” (PS06)

Outside, and in addition to professional practice, radiographers were assigned other roles at institutional level. For example, PS06 was designated as a staff development coordinator.

“So doctor. (Person named) asked me to be responsible for the staff development with the other doctor. I told her that I had no problem with that. She explained me the responsibilities: organising the CPD activities in the health centre and being responsible for the workshops’ and conference nominations, in collaboration with the administration.” (PS06)

The findings reveal that in the absence of the policies and guidelines for practising ultrasound and other extended role duties, radiographers ended up performing tasks beyond those they were trained for.

“Any patient [for ultrasound] we would do it. We would do the booking scan of the early stage of pregnancy and the anomaly. Though the anomaly scan should be done by experienced and qualified members, and normally it is done in polyclinics. But in health centres, if a patient registered late and couldn't be booked for an anomaly scan in a polyclinic, we would be asked to do the scan. We would also do the growth scan to check the foetus weight, placenta, and the amniotic fluid.” (PS07)

As a result, Ultrasound radiographers were often stressed and frustrated to the point they decided to demand changes.

“Frankly, it was chaos. We were very stressed from this aspect. We ended up working in ultrasound more than in radiography. After five years, you can say we got fed up.” (PS07)

““I liked ultrasound, and I did not reject any patient. Sometimes, I was scanning more than 12 patients a day in addition to x-raying patients. I tried to move somewhere so I can work in ultrasound only, but I could not. Today, I got to the point where I hate ultrasound, and I do not want to do it. (Paused) I felt I just have to do it. Frankly speaking, I was doing the scans the easy way due to the lack of appreciation and frustration that we had from the Directorate and The Ministry. ... They abused us when we did not know our rights, and when we asked for our rights, they treated us as if we conducted a crime.” (PS06)

The findings above demonstrate that Omani radiographers perform extended roles that are not regulated and are not supported with adequate training guidelines and privileges. As a result, the radiographers’ psychology and their job satisfaction was affected and suppressed the professional socialisation process.

5.8. Radiation Protection Regulations

Radiography deals with ionizing radiation and requires a set of regulations to ensure the welfare of the practitioners and the public and to dictate the quality and competence of the delivered service. The availability of ionizing radiation regulation facilitates and shapes professional behaviours. In addition, although the MoH has employed a radiation protection advisor (RPA), there are no regulations in place to govern the use of medical radiation in Omani radiography practice nor are there guidelines for referrals. The findings from the contextual data uncovered some guidelines written in the form of letters to medical officer in-charge (managers) in MoH institutions, about handling patients during radiography and fluoroscopic procedures. The letters were provided as a result of a debate that took place between radiographers and the national radiation protection advisor in a symposium in 2001. The radiation protection services department in the MoH was

asked by the radiographers to create recommendations (correspondence No: MH/DGEA/RPA/01/185).

In 2003, a committee formed in the MoH reviewed the recommendations of the International Commission on Radiological Protection (ICRP) for pregnant workers and issued guidelines for MoH radiographers. The guidelines for pregnant radiation workers in the MoH institutions were then distributed by the radiation protection services department to some institutions in April 2003 (MH/DGEA/RPA/03/161).

The research did not uncover any legislation on the use of medical radiation in Omani radiography. The absence of regulation on the use of medical radiation often leads to abuse of the service. For example, radiographers, radiologists and physicians were found to use x-ray radiation procedures to cover for their practical errors or to satisfy a colleague.

"One day, I x-rayed a patient with a stone in the pelvis, and it was blocking the way completely. I said to myself that the doctors would not recognise ... it because they do not know about it. Usually, I check the x-ray envelopes when I first come in the morning to learn whether the patients are referred. When they are referred, I would not find the envelopes. So, I found that patient's envelope. I went to the MOIC [medical officer in-charge] and told him. They called the patient and asked him to come back. He came, and we repeated the projection so that the patient would not suspect there was something wrong. Then, we referred him." (PS08)

"The doctor asked for the x-ray to be repeated. Why is that?! The image was clear, so I did not feel I needed to repeat it. I talked to a radiologist and asked him why the doctor wanted the x-ray to be repeated. He was not convinced with what I said, and was convinced with what the doctor wanted although he did not have reasons for that. ... But I told them I was not convinced to

repeat it, and I did not. Another radiographer repeated it. ... He [the radiologist] did not even see it then. He saw it later." (PS06)

Patients were also found to demand radiographic procedures and would challenge doctors to request them at the examination. In some cases, doctors, in particular expatriates, would easily accept such requests without discussion.

"Expatriate doctors usually try to avoid the patients' arguments as they are afraid because some patients may shout and said: Why wouldn't you request me [the radiographic procedure]? Is it from your pocket money? Indeed, this happens." (PS16)

Radiology departments in MoH institutions do not have policies on radiation protection. Moreover, radiographers are not aware of the guidelines issued by the RPO in 2001 and 2003.

"I do not recall any written laws or penalties for any errors made" (PS01)

"I have not come across them [policies and regulations]. But there are devices that measure radiation." (PS14)

When PS02 was asked about the availability of the radiation protection regulations in her institution, she emphasised the need to have the regulation in place, which indicates that her institution did not have any policies to govern the use of radiation.

"Honestly, I think we [radiographers in her institution] should have regulation." (PS02)

Some radiology departments made efforts to create their own policies but were not supported by the authorities in their institutions, as explained by PS18:

“She [an expatriate radiologist who was the head of department] started to set the policies and procedures to organise the department better. She wanted the department to have its identity.” (PS18)

The findings above reveal how the absence of professional regulations and codes of practice generated chaotic radiography practices and how the use of medical radiation is abused by stakeholders, including radiographers themselves, despite being trained to protect society from unjustified exposures. The absence of a regulatory body for radiography practice and the use medical radiation will have an impact on professional socialisation and the welfare of the society. Because there is an absence of mechanisms that prevent radiographers from misusing the ionising radiation. For example, performing un-justifying procedures which induce unnecessary radiation dose to patients.

5.9. Radiography Culture in MoH Institutions

Some institutions demonstrated an example of socialisation achieved through a supportive culture, which is reflected in the radiographers’ behaviours in helping each other when needed to reduce their workload and patient waiting time. Some institutions operated a more disciplined environment.

“During the busy time, the workload is distributed between the general room and the fluoroscopy room, when all the fluoroscopy procedures are done. So we learned how to manage cases and to co-ordinate with staff to reduce the work load on a particular room. Radiographers were cooperative... and this taught us the cooperation skills.” (PS04)

5.9.1 Commitment and collaboration

The findings also revealed, however, that some radiographers start their professional career with a lack of commitment and do not care if their work would be a burden to their colleagues, as in the case of PS02.

"I used to be a very indulging girl. I admit, and everybody knows. For any reason, I would make an excuse to be absent and get a sick leave note. I used to feel that my presence or absence would not make any difference to the department. Others would cover for me." (PS02)

"The first time I did that, I was at night duty. My flight was at 6 [a.m.] in the morning and I had to be at the airport at 4 [a.m.]. The night shift duty finishes 7 [a.m.] in the morning. So, I told my colleagues that I had to leave early as I have to fly, and I showed them the air ticket. They argued with me a lot. Then they told me do not do this again." (PS02)

A lack of professional commitment and lack of discipline was noted in different institutions of the MoH.

"Last Ramadan [the holy fasting month for Muslims], the OT [Operation Theatre] worked from 8 a.m. until 1 p.m. I was in the OT room. The case took some time until after 1, you have to wait until the afternoon shift starts at 2[p.m.] and then swap with them. You know in Ramadan, everyone is tired. There were cases in the morning at 8[a.m.], and they called me for a case at 1[p.m.], and I had to complete it of course. So I stayed until the afternoon shift started. The ones who had the afternoon duty were late. Two of them were late, and there were supposed to be three in the department. Only one of them came. Of course, he could not leave the department and come to the OT. Two radiographers were late. I got angry and asked how they could be late. The two of them were expatriates. They were not Muslims and were not fasting. They were late, so I sent a message to our 'WhatsApp' group asking why they were late. The supervisor replied to me and said that we have to be cooperative and punctual. I told him that I had no problem with that. I was supposed to finish at 1[p.m.]. I finished at 2[p.m.], and I waited till 2:40. I gave them 40 minutes, and I was fasting. They were expatriates, meaning that they were not fasting. I gave them 40 minutes limit, but no one came to the OT." (PS10)

“In other hospitals, without mentioning names, interns arrive at 7.30 [a.m.] and can leave the department at 1.45 or 2.00. [p.m.] The staff are easy going and friendly. The break can be from half an hour to one hour, and no one will tell them anything. But here in this hospital, this is not accepted. Anyone who comes here does not feel comfortable. You are expected to be in your room at 7.30 [a.m.] and are not allowed to leave before 2.30 [p.m.] when the next radiographer comes to take over the patient. This is because there are patients in the rooms and waiting areas, I was worried about this when I applied to this hospital.” (PS01)

A lack of professional commitment was also noted when radiographers ‘vanish’ during working hours and leaving the burden of responsibilities on the students, as explained by PS14, recalling an incident when he was a student.

“In (hospital named), we would start the morning shift with 14 employees. By the time, it was 10:30, you would find only six employees. We did not know where they went. I had many problems with (hospital named). That is why I hated it during the internship. One day, they told me to stay in the darkroom ... my posting was in the darkroom. I was attending the darkroom. There were two Omani employees there. It was about 8:30 a.m. We were three: one got the cassettes; one printed the labels and others uploaded them to the processor, and the work would go on that way. Until one said that he wanted to go on a break. We said: Okay. Then, we were two, and it was still crowded. The one who was with me told me that he would be right back. I said: Okay. It was 10:30 a.m. then. Do you know that I stayed alone in the darkroom till 1 p.m.! ... And I could not go out!” (PS14)

Radiographers act unprofessionally and irresponsibly. They mislead their supervisors and tend to cover for each other’s unprofessional behaviours, as revealed from the statement of PS01.

“For example, if my colleague is late, and the In-charge [lead radiographer] passes by and asks for him, I say that he is in the cafeteria. Moreover, that is it; she will not pass by again until the end of the day.” (PS01)

The finding also revealed a reckless attitude on the part of radiographers, as in the case of PS02.

“If I went for a break I would take an hour instead of half an hour.” (PS02)

Radiographers were found to breach confidentiality and use social media to transfer patients' information to another colleague in a different institution for the purpose of patient management. These activities were carried on before the 'What's App' was encrypted, as in the case of PS06:

“For example, if I found an abnormality that I could not identify. Sometimes, we would take the image and send it via phone.” (PS06)

Some leadership/ management styles were found to be humiliating. Radiographers were told off and demeaned by their supervisors in corridors and in front of junior members of the profession.

“His [a radiographer] expression changed. This was in front of a student. If I made a mistake as a staff, I would not like the in-charge [lead radiographer] to tell me off in front of the students or in front of other staff. You as an in-charge, you have an office. You can call me anytime. I can leave my work and come to you and discuss the issue with you. But you should not tell me off in the corridor in front of others.” (PS01)

“Yes, the patient was done at the end of the shift and most of the time that room was not used in the other shifts. They just used the CT and the resus room. So, it was not cleaned till the next day. They asked who was in the room and said that there was a needle and other stuff there. Okay, I admit that I forgot or

it was at the end of the shift. But why not fix the issue in a friendly way? He could call me to his office and talk to me instead of talking in front of the others.” (PS05)

The leadership also adopts an oppressive-style which constrains radiographers' freedom in the choice of future directions. PS01 was punished when it was discovered that he had applied for a job at another institution.

“During that period, I was working in CT. When the manager found out that I had applied for a job to (hospital named), I was punished again and posted on the night shift.” (PS01)

There is absence of respect and dignity in the radiographers-management relationship reported by number of participants, e.g. PS06.

“I would see them [radiographers] argue with the management a lot if they did not like their shifts and they did not have good manners with them. Thank God, I was nice to the management as well as the staff, so I did not face any problems with anyone. Sometimes we were posted with male or expatriate staff members. In the night shift, we would be posted with two male staff members who were not Omanis. I did not have a problem with that either. I would just do my work. I was not there to chat or play anyway. So, I did not need to argue about the schedule with them. I had no problem with it, as long as it was fair.” (PS06)

Radiographers are found not to respect professional seniority and may cross expected professional boundaries when communicating with those in a leadership position.

““This happens. If a supervisor did something they may reply back. For example [a radiographer may argue with their senior by saying]: You are coming late, so why do you question us?” (PS03)

“The head of the department was Indian. One of the Omanis did not like to be given orders. He knew his job. He would do chest and lumbar spine x-rays, and he knew well how to do it. She would give him orders, and he did not like that.” (PS05)

“Some other staff members did not have ... [appropriate] values when dealing with the management. But personally, I had no problems with them.” (PS06)

Radiographers were also found not to respect and support each other. For example, PS15's colleagues were upset and started to shout in the department when they found out that PS15 was approved by their manager for training in MRI.

“They were not happy for me. I felt that it was unfair. It did not make sense that others should control my future. So, if I wanted to study, but an employee or two started shouting, I would just give it up.” (PS15)

The findings revealed that radiographers are often undervalued by other health professionals.

“..., it was difficult; the doctors would be screaming and it was scary. For example, if I made a mistake they would not try to understand. They screamed at me.” (PS11)

“But in the ICU, the nurses especially, are very tough. They would shout at me: Come here! Go back. Come later! Why did you come now? and so on.” (PS15)

“For example, one patient had a wrist pain and the doctors asked for the whole hand. I asked the doctor and told him the patient only needs an x-ray for his

wrist. He said: No, do the whole hand. I asked him for an explanation but he refused to give one.” (PS16)

The findings above suggest that the absence of professional values and behaviour, as well as of professional standards in radiography in the MoH hospitals. Professional standards are a core element of establishing and maintaining professionalism and trust. An absence of professional standards can result in trust being undermined by lack of competence and unethical behaviour. Without trust, the profession will suffer and be undervalued by other professional co-workers.

5.9.2. Cultural stereotyping and racism

Radiology departments, however, are multicultural, with radiographers from different backgrounds. Expatriate radiographers come with their own cultural attitudes and behaviours, which impacts on the socialisation of Omani radiographers. For example, PS02 had to learn the language of the expatriates to facilitate her settlement in the workplace. Her statements also reveal the uncertainty she experienced when she started working as a radiographer.

“So, I started to communicate with Indian radiographers because, in the end I need to know about my work. I need to know what they are doing. I like to ask questions and understand the subject. I would even like to learn their language; most of them are Indian and Filipino. More Omanis came later. When they were talking together, I wanted to know what they are talking about. Maybe it was something I did wrong.” (PS02)

The cultural background differs between Omani radiographers and their expatriate colleagues, however, and this was noted in the cultural stereotypes in both; the expatriate are envious and the Omani dislike the expatriate colleagues. The stereotype impacts on the radiographers’ working lives and satisfaction. For example, PS10 was unfortunate when he was talking about his relationship with his colleagues in the same department.

“That’s why I preferred the Omanis [colleagues] rather than the expatriates. I felt that they [expatriates] were envious, especially in here. At the (hospital named), they were like that too. But they were not like that at (hospital named) or the (hospital named). They are like that mainly here and the (hospital named).” (PS10)

“Thereafter, they [management] would post me with Indians and people who go straight away and report to the in-charge, they go directly to report anything, even if I drop something down. They are well known in the department. So, all my posting was with one of them.” (PS02)

Another example of stereotyping is when PS10 was called for ‘on call’ duty by an expatriate radiographer when there was no need to do so, but only because of personal issues between the two. The researcher noted discontent in the participant which indicated that stereotyping was a real issue.

“No, they cannot. But in the shift duties, it is not decided like the morning. Anyway, I tried to gain a rapport with them and deal with them. It is not good to have blocks in the department: the Omanis are separate from the expatriates. Thank God, I started to have some relations with them. However, I do not deal with some of them till now. Not so long ago, about two months ago, I had an incident with the same person I told you about. I was on-call. I was at (a city named). I went home and prayed, and then I found that he was calling. There were two radiographers at the hospital. He told me that there was a case in the OT. They were a Filipino and an Indian. The Filipino was going to the OT room, and the other one would be left solely responsible for the emergency department that was crowded with A&E and trauma cases. He told me that I had to come to work. On my way back home, I actually saw an accident. So, I assumed that they brought the casualties to the hospital. I did not wear my clothes. I wore the Kandora [the traditional Omani clothes] and the lab coat and went to the hospital. When I arrived at the hospital, I found that the radiographer who called

me went to the OT. I went to the emergency department and found it empty; no RTA cases or anything. It was empty. And why did he call me? Just because there was tension between us! The next day, I had morning duty. I went back to the hospital that night at 11 p.m. and stayed until 2.00 a.m. waiting for the RTA cases. During that time, from 11 to 2, only two patients came [in]!” (PS10)

Some disturbances in the relations between Omani and expatriate radiographers was reported. Expatriate radiographers created a culture of stereotyping that impacted on Omanis. ‘Spying’ and reporting to supervisors was an issue pointed out by some participants.

“Some expatriates would do things that are weird for us, but that did not affect me. One has to adapt to his life.” (PS05)

“Even my colleague, who worked with me, would go to the manager [lead radiographer] and make problems for me. This happens even today.” (PS01)

“Because the people doing this, think that they are going to be promoted. This is all part of flattering, or maybe this is part of their behaviours. They cannot keep quiet. They have to report things. You do not know the reason.” (PS02)

“Some would detect your mistakes to report them to the supervisor so that he would appear to have done something for the hospital or inform something. There were people like that at (hospital named).” (PS05)

“However, at the borderline of Wadi El Jizi [immigration and passport checkpoint with UAE border], an incident happened with the Indian [colleague] who went with me [to the Arab Health Conference in Dubai]. The passport of the expatriate should be valid for more than three months before travelling. I think it should be at least six months. His passport was not expired, but it only had three months to expire. They did not let him pass.

So I went from there and talked to the Bedouins [an ethnic group living mainly in deserts] and told them that there was an expatriate who needed to go back to (hospital named).

Interviewer: You were happy!

Interviewee: Yes, I was happy all day because that person was the cause of all problems at the hospital (He laughs).” (PS05)

This stereotyping creates fragmentation in the relationships between radiographers in the same workplace. The study revealed the formation of distinct cultural groups in the work environment with expatriates against Omanis. Unprofessional behaviour was also noted when staff were required to handle errors, as concluded from the story of PS02:

“I use to see them [expatriate radiographers] covering each other’s mistakes every day. But for me, they point out my mistakes, nobody covers for me. I used to see lots of deleted cases, and I heard them saying somebody might find out. So they deleted things, so nobody could find out. They covered for each other but for me they reported it, even if I made a silly mistake.” (PS02)

As a result, radiographers tend to limit their interactions and communication with problematic or ‘out’ groups:

“..., I do not interact with them much [expatriate radiographers], because I know they are not good, they spy and report to the in-charge, and they are not accepted psychologically, you do not feel comfortable with them. I am good with them, but I do not have to be their friends.” (PS02)

Racism was observed among radiographers. According to Oxford dictionary, racism is defined as a "Prejudice, discrimination, or antagonism directed against someone of a different race based on the belief that one's own race is superior". Omani radiographers prefer the sponsored training opportunities to be reserved for the

Omani radiographers, as concluded from PS05 statements. PS10 reasoned that expatriates are on short term contracts and would leave the country.

“There was once an Arab Health conference in Dubai, so they selected one of the expatriates and me to attend it. I wished I would go with an Omani. They said they wanted to give a chance to the expatriates too. I think the Omanis should have had the priority. Why would sending a foreigner to an Arab Health conference and give him O.R. 250-300 [£480-576] pocket money, show him all the equipment and the machines of Philips and others, then he would come back and tell you a few things that an Omani could tell you? I went and told them about what I saw there.” (PS05)

“They [expatriate radiographers] would go and do the course. Then they would find another job and leave [the country]. I feel that the priority should be given to Omanis because he would use it in his own country. Omanis should go to this training course.” (PS10)

Racism was also reported in the study when expatriate radiographers were given more training opportunities than the Omanis.

“The company did courses for the employees who worked on the [CT] machine. There were names maybe [supplied] from the supervisor, maybe selected by the company. But most of them were the expatriates, not Omanis. The priority was given to the expatriates.” (PS10)

The findings above indicate a cultural diversity in Oman MoH hospitals but suggest that the management system fails to pull this diversity together into a harmonious working culture. Stereotypes and racism in the workplace affect job satisfaction and professional behaviours, and, therefore, the professional socialisation of Omani radiographers.

5.9.3. Favouritism

Consistent with the variation in MoH institutional cultures within the different healthcare organisations, and the differences in management and leadership practices, favouritism was also found in some of the participants' stories. In the context of understanding professional socialisation, favouritism can be seen as a factor which militates against positive professional socialisation.

"Because there are staff who are very close with the in-charge [lead radiographers] and have a good relationship with them. They were treated differently. There was no problem if they made mistakes, or came late to work or needed to be excused to go early for personal or family reasons. For them it was allowed, but not for the rest." (PS01)

"For example, it is so easy for some employees to go on vacation while if you ask for one, it could be difficult and the one in charge [lead radiographer] would ask you why. What if I do not want to tell anyone about the circumstances I am going through – I want to hide! I might have personal reasons, but they would insist on knowing why." (PS05)

"In the appraisal, the supervisor gave me 80 percent. At the borderline [the required score for scholarships]. That person who has an incident reported against him. The entire staff complain about him because he does not sit where he is posted in the evening or at night. He is also late. In spite of all of that, he got 96 percent. There were some arguments in the department because of him. Everyone was wondering how he got this course. This person is his friend of course. Everyone did not like that. When you apply for a scholarship, they look at the appraisal. So, he got it of course as he got 96 percent, while my colleague got 82 percent and I got 80 percent. The competition was between the three of us, so he won." (PS10)

Favouritism is also found in the selection of candidates for continuous professional development programmes, incentives, and bonuses, as indicated by PS01 who sounded angry and dissatisfied:

"We know the names of the staff who would go for the Arab health conferences. Their names are constantly repeated, for incentives and bonuses. This year new staff who have not completed a year went for the Arab health conference. Whereas there are senior staff who have completed ten years, but have not had a chance to go." (PS01)

"... but this year, in particular, there were applications that were rejected. For example, there is a person whose application was rejected. His evaluation is less than 80%. And then I saw that person at the interview." (PS01)

Unclear strategies and a lack of transparency in the management of human resources were also evident, as concluded from the narrative of PS05, who had three years' experience in CT before moving to his new workplace.

"In the first year, they would not let us frequently work on the CT; I do not know why. I think they were afraid that the machine might break or that the Omani radiographers would learn more than the Indians. I did not understand why they did not let the Omanis work on the CT or the MRI. I did not work on the MRI at all." (PS05)

These findings indicated the radiographers' frustration and dissatisfaction as a result of favouritism. It also revealed an impact of favouritism on the professional development of those who were negatively affected by it.

5.9.4. Radiography Practice Norms

There were some radiographers who had a sense of belonging to the profession and a commitment to promoting it by taking part in teaching and training. Teaching and training are core activities in radiography (SCoR, 2011b). They ensure quality and best practice as they give young radiographers training and confidence, facilitate enthusiasm in them for the discipline and ultimately would encourage them to take similar roles in the future. The findings also indicate, however, that there are some radiographers who would not contribute to raising the standards of practice or supporting the learning of trainees, as explained by PS06.

“Sometimes radiographers at (hospital named), the staff members would not pay much attention to teaching them. They would see students making mistakes but not say anything. This would happen, especially if the student did not have a teacher. I did not like that. I would go to the student and try to teach him.” (PS06)

Some radiographers, including the senior members, would give a ‘tough time’ to the trainees during their clinical placements, and did not appear to prioritise the patients, which suggests a lack of commitment to the future of the profession.

“There was a group of them; the preceptors, who look after students, teach them, and care when they come to the hospital in the morning, and when they leave in the afternoon and explain things to them. There was no direct communication with other staff. If one of the supervisors found a student's error, the student would be in trouble.” (PS01)

“They [radiologists] did not seem to care much about the patients. That was how I felt. The most important thing for them was to satisfy the doctors. Those were my feelings.” (PS06)

5.9.5. Interprofessional relations

The results also uncovered that some radiographers who were not comfortable with the professional norms in fluoroscopy. Radiographers are expected to assist physicians during fluoroscopy procedures. They also have the responsibility to take all possible measures to minimise medical radiation dose to patients and the public as far as reasonably possible (SCoR, 2013; Johnson, 2015; Ahmed and Taha, 2017). However, the lack of national regulation in the use of medical radiation opens the possibility of exploitation, which means that radiographers do not have control over their own practice (Rafferty et al., 2001). In many cases their practice is controlled by other professionals such as radiologists and physicians.

Even after years of practice, PS04 was unhappy working in the fluoroscopic room and handling patients during radiographic screening due to radiation doses. He invites relatives to handle patients during the procedure.

“No, I was not comfortable because of the radiation involved in the fluoroscopy. (Paused) This is what I did not like about it. (Paused) There was more radiation in fluoroscopy than in general and mobile radiography. I was trying to minimise my staying in the screening room. I wear lead apron and collar and help in exchanging cassettes.” (PS04)

“We need a relative to be around and we give him an apron to wear. ... This is what I do ... to minimise radiation.” (PS04)

Some radiographers were found to have concerns about the norms of particular radiological procedures as explained by PS03. Again, radiographers are expected to participate in contrast agent fluoroscopic procedures including Barium enema (SCoR, 2013).

“They [radiographers] kept away from fluoroscopy. They were stingy in information [for novice radiographers], especially in the barium enema

procedures. They were concerned about barium enema, like it was so difficult. The staff were like: Oh, there is a barium enema today! You feel they were very concerned about it ... They avoided the procedure itself.”
(PS03)

In particular, radiographers were found not to be comfortable about inserting enema catheters, as indicated by PS03:

“We inserted enema catheters our own. I think that was what made it difficult.” (PS03)

This was confirmed by PS04. In the absence of assistance from radiology nurses, normally a radiographer is expected to insert a Barium enema catheter.

“Interviewee: I do not like to do Barium Enema. (Paused) But we have to do it.

Interviewer: Why you did not like it?

Interviewee: I do not know what to tell you.

Interviewer: Was it because of inserting enema catheters?

Interviewee: Yes, it was because of that. ...” (PS04)

These results also indicate unreasonable use of medical radiation by different personnel. Non-experienced physicians consider radiography as an easy and available investigation they can access even with unjustified cases. All healthcare personnel; referring physicians, radiographers and radiologists should have concern for the possible stochastic effects of radiological procedures. They should aim to minimise the possibility of deterministic health effects by keeping radiation exposure as low as reasonably achievable (ALARA). Healthcare professionals should therefore strike a balance between the reason for the procedure and the delivered dose (Johnson, 2015).

Some radiographers were willing to conduct unjustified radiographic procedures, as found in the case of PS06 who refused to repeat a normal radiograph but then it was given to another radiographer who repeated the projection. It indicates that some radiographers unquestioningly obey the instruction of physicians, irrespective of exposure risk, to patients and colleagues.

“But I told them I was not convinced to repeat the projections and I did not. Another radiographer repeated them. I was not convinced that I should repeat them. I would discuss with them [referring physicians].” (PS06)

In Oman, radiographers can only refuse conducting a radiographic examination if they persuade the referring physician that the request is unjustified.

“These things are allowed and not allowed at the same time! First, in Oman, the doctor is the one responsible for the patient; he is completely responsible. The radiographer does the radiographic examination by order from the doctor. At the end of the day, the radiographic department serves the doctors not the patients directly. So the doctor's orders should be respected. The radiographer cannot refuse to do the x-ray examination unless he has convincing justifications. If he does, he should explain them to the doctor, not to the patient.” (The Senior Radiographer)

In addition, some radiographers were found to be afraid of the radiologist and they would do anything that they are asked, as stated by PS06:

“They were afraid of the radiologists because they might cause them problems. So, they would do anything they ask.” (PS06)

The experiences of the participants suggest that the lack of a clear professional identity means that hierarchical power can be employed with radiographers, who can be threatened and punished by the power the management have on the profession.

"Because the in-charge [radiographer] threatens staff by saying: If this happens I will transfer you to Salalah, or to Jalan ... you should obey and be disciplined." (PS01)^{}*

"The following day, the manager met the radiographer at the reception. I was with him. She asked him: Did you do what I asked you? He replied: No. She said to him: It seems you do not want to stay in the (hospital named). She never asked for a reason!" (PS01)

"If you work in CT, you are expected to be disciplined, start the work at 7 and should not leave the room before 3 pm. We worked and attended 30 patients per day. It was disturbing that one worked for one or two months under pressure, with a high quality of performance, but if you made a simple mistake or that someone was against you, the punishment would be applied to you." (PS01)

"I remember I called a radiographer and told him that I will be late for some time. As soon as I arrived, the in-charge summoned me, and without asking me what is the reason for me being late, she said to me: You are two hours late, you have to work two hours after work." (PS01)

^{*} **Note:** *Salalah is a region in the South part of Oman. Jalan is in the east Part of the country. Both regions are remote from many facilities and activities that take place in the capital area Muscat, and require long hours of driving.*

Radiologists were found not to support the radiographers and may sacrifice patients' safety to satisfy physicians, as concluded from the statement of PS06 who refused the radiologists' instruction to repeat the radiographic projections without even reviewing them.

"He [the radiologist] did not even see the images [at the time of taking them]. He saw them later." (PS06)

5.9.6. Radiographers' Autonomy

As is evident from the findings presented so far, in Oman there is no mechanism, regulation or codes of practice to support radiographers in their professional judgements. Thus, radiographers lack professional autonomy and as a result are not treated with respect and dignity. They often seek radiologists support when they have to make professional decisions, for example, when dealing with doctors.

"Sometimes, I would talk to the radiologist and sometimes I would talk to the doctors, but no one was cooperative."(PS06)

Radiographers were found to be unable to discuss their professional opinion with referring physicians.

"Because a doctor requested it. If I tell a doctor that the patient did not need it, he would answer: "Who is the doctor? You or me?" (PS05)

"For example, one patient had a wrist pain and the doctors asked for the whole hand. I asked the doctor and told him the patient only needs an x-ray for his wrist. He said: No, do the whole hand. I asked him for an explanation but he refused to give one." (PS16)

Radiographers were also found to lack the autonomy to discuss issues with departmental radiologists. They are required to stick to the structure of the organisational hierarchy.

"If anything happens (paused). For example, if I have an issue and I went to see a radiologist (paused), if the radiographer manager found out (paused), she will

not like this [she would say:] "You should not breach the professional hierarchy, any problem you should come to me." (PS01)

Investigations of the contextual material did not lead directly or indirectly to any documents to support radiographers' autonomy. The investigations reveal, therefore, the absence of professional standards in radiography that radiographers can rely on to support their professional judgment. The senior radiographer, however, indicated that radiographers should obey the referring physicians' orders for radiographic examination in institutions where radiologist services are provided.

"These things are allowed and not allowed at the same time! First, in Oman, the doctor is the one responsible for the patient; he is completely responsible. The radiographer does the radiographic examination by order from the doctor. At the end of the day, the radiographic department serves the doctors not the patients directly. So the doctor's orders should be respected. The radiographer cannot refuse to do the x-ray examination unless he has convincing justifications. If he does, he should explain them to the doctor, not to the patient." (The senior radiographer)

In summary, the culture in Omani radiography indicates the absence of shared values, behaviours, standards and norms. The culture can be described as chaotic and is characterised by a lack of commitment and support, favouritism, punishments, and lack of professional autonomy, breaches of radiation protection standards, and compromised patient care. As a result of the absence of resources (such as a trades union (SCoR) and structures to support radiographers as professionals, radiographers do not have control over their own practice and cannot exercise autonomy. The system in Oman requires radiographers to follow the instructions of radiologists and physicians unquestioningly, consequently, they are not valued as professionals. The study suggests the absence of structures and processes to enable all radiographers to identify as one professional group inhibits professional socialisation.

5.10. Management and Leadership

The term leadership/management used in the context of this study is the WHO (2008) definition which refers to a person or a unit which facilitates, aids and supports radiographers in the accomplishment of a professional task and promotes individual, group or professional development. Omani radiographers in primary healthcare settings are administratively linked directly by the medical officer in-charge in their institutions and report to the Directorate General of Health Services (DGHS) in their regions. A radiography hierarchy does not exist in health centres (HC). Because radiography rooms in health centres are staffed by a single radiographer. Professionally, extended primary healthcare units (Polyclinics) and a radiographers' coordinator (a focal point at the GDHS) manage HC radiographers' postings, annual leave and sick leave.

"Well. It is known that the one responsible for the staff [radiographer] in the health centre, is the MOIC [Medical Officer In-charge], but if anything happens, they tell me. Doctors [MOICs] cannot sign for annual leave for anyone without coordinating with me. I arrange for substitution when anything happens. They know that the MOIC is officially responsible, as the x-ray department is subsidiary to the health Polyclinic. The other departments also coordinate with their main departments in the health Polyclinic to cover them. ... We coordinate the schedule accordingly. If there is an emergency, the staff member calls me, and I decide who will substitute for him." (PS13)

"At the time I was in (province named), (person named) was responsible as a focal point. She was responsible for all of the radiographers in (province named)." (PS07)

The data uncovered various types of leadership and management applied in radiology departments. Some were supportive, but this was determined by individual characteristics, rather than professional or policy requirements.

"I remember me talking with the radiologist manager and (a person named), the [radiographer] supervisor. They told me that there was no need for me to go work elsewhere, that I was going to be comfortable here and to ask them if I wanted anything. They told me that they will support me. ...The welcome I received made me feel that this was the place to be, not Muscat or anywhere else. The head of the department also welcomed me. This has a way of making one feel good." (PS12)

Some managers exhibited effective skills to manage challenging subordinates, as in the case of PS03.

"It worked. Because when the troublemaker radiographer went through the process of creating the duty roster, he started supporting me." (PS03)

Disciplined leadership was adopted in some radiology sections. For example, discipline regarding the safety of patients from radiation, as indicated by PS02.

"In our department, we are more disciplined on those things [radiation safety]. The people who pay more attention to these issues would be our in-charge [radiographer] and the paediatric team. If you over-exposed a paediatric patient (paused) you're dead.

Interviewee: You will be under a lot of questions from everybody (paused) of course not legally (paused) but you will be questioned by everybody: Why and why. You would be facing a lot of this." (PS02)

Some of them also have the authority to assign the appropriate people to take certain responsibilities. For example, PS12 was selected by the head of department to be the radiographer manager deputy over his senior colleague who was deemed inappropriate. However, the lack of transparency and competition for the post created chaos in the radiography department.

"They [the management] had formed a negative idea about him [the senior

colleague] then, they made me second in-charge [deputy] instead of him. ... His argument was why make a new employee supervisor? Why was I placed manager when there were more worthy radiographers like him? The radiographer senior to him said that he had no problems with the decision. The head of the department summoned them and told them the reasons behind choosing me, which were that I was not a trouble-maker, that he trusted me, and that I was the best person for the post.” (PS12)

The findings also revealed a lack of skills in some managers to run the day-to-day service. The experience of PS08 indicates the absence of a communication link between managers and radiographers. In her story, PS08 explains that the radiographers were not updated by radiographer management on changes relevant to the day-to-day work:

“For example, we would receive the old radiographs from the other departments in the morning. One day, we wanted to file them, but we did not find the film envelopes. When we asked, we were told that the system was changed and that we should go to the departments and get the envelopes ourselves. That was the new rule. ... That was a change in the system. Nobody told us about it.” (PS08)

The findings of the study also indicated that managers do not necessarily have the attributes to support radiographers as professionals. There were no mechanisms for providing radiographers with feedback on the quality of day-to-day practice, resulting in radiographers continuing to practise without knowing their strengths and areas for improvement.

In addition, service managers do not often have skills to control radiographers' behaviours and, in some cases, important issues are not handled instantly.

“... they used to think that when I use to take sick leave, (paused) that it was from my sisters [one of them is a doctor]. It is a bit later when I came to know about this. I never got sick leave from them.” (PS02)

“They [management] tried to talk to them [radiographers], but nothing worked out. They found that they did not have the wisdom needed to manage. They only cancelled my training because they were afraid of the employee who kept shouting and yelling. Nothing happened then.” (PS15)

The findings uncovered some attributes of radiographer managers. For example, novice radiographers with no experience were appointed to take charge of radiography departments in extended units where there were senior, but expatriate radiographers employed.

“I have been in-charge of the department from day one. ... Doctor (a person named). He is my boss. He said I was the in-charge [radiographer]. When meetings were held, it was me who attended; when there were any comments or doubts, it would be me taking care of them. When new staff members joined, I would meet them, if someone wanted to leave, I would handle their issues, etc. As time passed, my responsibilities grew.” (PS13)

Although it was not an official post in small institutions like Polyclinics, as he explains:

“I asked later for an official title, being the one responsible for the department. But I have not got it until now. It is just known that I am responsible for the x-ray department of the Polyclinic; but no official status.” (PS13)

The lack of a recognised system for promotions meant that some unsuitable radiographers were posted as supervisors, which has a negative effect on professional socialisation, as explained by PS10.

“He [radiographer manager] is Omani, but he is the only staff member that I am not on good terms with. He came back after he completed his study and became a supervisor when (a person named) left to complete her study. The misunderstandings and tension are not just between the two of us. I feel that he has problems with everyone. Everyone complains about him.” (PS10)

The management and leadership of radiography is known to impact on professional socialisation, and the findings disclosed some positive impacts of leadership and management on radiographers. Supportive leadership facilitates positive interaction and job satisfaction, as found by PS12.

“After about a year. I became used to the situation, and I found that dealing with the supervisors here and the department heads were better than in Muscat. And for that reason, I settled here and stopped thinking about going to Muscat.” (PS12)

However, the absence of effective management skills in handling radiographers’ issues has a significant impact on newcomers’ transition and integration.

“I felt out of place. One day after the other, I would still feel unwelcomed. It continued like this for months. The in-charge [radiographer] was supposed to talk to me and explain everything and give a clear plan, but it never happened.” (PS15)

It can also result in loss of control in their professional attitudes and behaviours.

“There are problems in (hospital named) recently. There is one group that complains about another group, a radiographer complained about another radiographer to the public prosecutor. I told my colleagues in (hospital named), if you have an in-charge [lead radiographer] like the one we have,

these problems will not occur. There are positive and negative aspects.”
(PS01)

Strict and authoritative management normally causes stress and dissatisfaction. Radiographers were found not to appreciate management that made comments in front of others, though some radiographers may accept this as part of professional norms. Whilst PS05 accepted this management behaviour as a norm, however, he also referred to the behaviour as an attack.

“A lot of radiographers could tell you that they did not like it at (hospital named) because the head of the department is strict and she checks everyone’s work: the staff, the interns, and the students. These things [management behaviour and supervision] that people spread in a wrong way. I was there myself. There is professional life at (hospital named). I agree with my supervisors to draw attention to my mistakes and correct them. Some staff would not like that. In their point of view, if they made a mistake: I would correct it in my way! They did not like to be instructed in front of the others. Sometimes, in (hospital named) they are attacking people!” (PS05)

The findings above confirmed the lack of a recognised system for promoting radiographers to supervisory posts, which resulted in different management and leadership styles being adopted in radiography departments. Some leaders were found to be ineffective as managers, which had a negative effect on the transition and integration of the radiographers. Radiographers were often found to be stressed, demotivated and dissatisfied in their work environment, which is likely to be a direct consequence of the absence of a professional identity.

Summary

A clear structure in an organisation provides employees with a set of information and resources to amend conflicts in knowledge, values and behaviours, and guides them towards appropriate attitudes and behaviours (Ashforth et al., 2007). It clarifies expectations, reduces uncertainty and improves self-concept and confidence (Kramer et al., 2013; Saks and Gruman, 2011), as well as working towards shaping an identity that fits the professional role (Dinmohammadi et al., 2013). The findings in this chapter revealed that radiography in Oman has a chaotic structure, culture and leadership.

Professional culture is central in shaping interactions and behaviour (Schaubroeck et al., 2013), allowing individuals to make sense of the workplace environment and learn coping strategies. The culture of radiography in Oman is found to be characterised by inappropriate behaviours, a lack of professional commitment and loyalty, a lack of standards and values, breaches of radiation protection standards, and compromised patient care. Novice radiographers learn the culture of their profession, thus, this culture makes them assimilate its values, norms and behaviours (Anakwe and Greenhaus, 1999; Mackintosh, 2006; Dinmohammadi et al., 2013) and, in this case, facilitates their learning negative behaviours (Saks and Gruman, 2011; Waterhouse et al., 2014).

The results also reveal a lack of organisational resources to support radiographers in their socialisation, which also has a negative effect on their professional status. For example, ineffective orientation for new radiographers, and the absence of mentorship programmes and job descriptions negotiated individuality. Radiographers were left to learn their roles and to deal with their uncertainty alone, reinforcing reality shock (van Maanen and Schein, 1977; Saks and Gruman, 2011; Kramer et al., 2013), and prolonging the transition and integration of novice radiographers (van Maanen and Schein, 1977). In addition, the absence of professional regulations, standards and a scope of practice created a chaotic situation where radiographers do not have control of their profession, simply receiving instructions from radiologists and physicians and being unable to exercise professional autonomy. It also facilitated exploitation whereby radiographers were

allocated additional tasks and roles, some of which were not relevant to radiography.

Radiographers themselves were found to exploit the absence of job descriptions and regulation to refuse some assigned tasks. Repression was reported in the study as a result of ineffective regulations and the lack of job descriptions and a scope of practice that radiographers could rely on as a means of support. The unclear radiography career structure gave radiographers unofficial but important roles in their departments, such as lead, supervisor radiographer, and radiation protection officer. However, because they were unofficial roles, there was no training and privileges associated with taking up the posts. Radiographers also performed unregulated extended roles without adequate training and privileges, again affecting their psychology and satisfaction, and suppressing the professional socialisation process. It was evident, in summary, that radiographers are not valued as professionals by other medical and allied professionals. The study therefore suggests the need for a structure and resources to support Omani radiographers in professional socialisation and the development of a professional identity (Farnell and Dawson, 2006; Saks and Gruman, 2011).

Chapter Six: The Professional Identity of Omani Radiographers

6.1. Factors Influencing Professional Identity

In the previous chapters the findings revealed factors associated with the formulation of the Omani radiographers' identities. A sense of professional responsibility shapes the identity of radiographers, as illustrated by PS03. PS03 is very alert to her responsibility as a supervisor radiographer in her institution and works to ensure a friendly functioning environment and to be 'firm but fair' with the radiographers.

"For example, they [radiographers] would look for me in the department early morning, to see if I am late, but I was always there before time. I like to be loved by others. Yes, I am firm, but do not want somebody to hate to come to work because of me. I do not like to create this kind of environment. I do not like to be unfair to anyone, especially in the job appraisal. I really feel this is a big responsibility." (PS03)

Taking on additional responsibilities outside the scope of radiography and at an institutional level shapes radiographers' professional identity and promotes self-identity.

"I learned new things. I hold a lot of responsibilities here in the health centre. Now, I am responsible for the staff development and I am the x-ray focal point of the province. There are other responsibilities I held during those years; the last thing was the staff development. Thank God, I feel that I have a high status in the health centre not just in the x-ray department." (PS06)

The availability of policies and procedures in the workplace has a significant role in constructing radiographers' identity. The absence of a professional structure, however, leads to radiographers' practices expanding in other areas. For example,

PS13, who works in an institution where there were no radiologists' services was found to act in the role of a radiologist and comment on radiographs.

"I wanted to be like a radiologist here in the health complex. We did not have radiologists here, so I acted like one. I wanted to gain more experience."
(PS13)

In another example, PS08 follows several methods to report abnormal cases to the referring doctors. She would either verbally report the image to the referring doctor, physically mark the image or verbally inform patients.

"When I figured out that the doctors do not know, I would go to them myself or I'll mark [on the film] or I tell the patients." (PS08)

The culture of the workplace facilitates novices to learn and adopt new behaviours

"... but if they saw that you were not confident, they would yell at you. But if you were firm and confident and said something like: No, I have to do this now. They would say: Okay, sister." (PS15)

The absence of experts may lead the radiographers to breach some of the conditions for patient safety. It also creates radiographers who do not obey the institutional orders. PS13 had to ignore an internal memo he received for commenting on radiographic images because his institution does not have radiologists to report on x-ray films and incidents occurred in which abnormalities were missed.

"It was an internal memo. I do not know why, but I had to put it aside. Sometimes I had to do that because some doctors are not very experienced with x-ray films, which is understandable. But I want what is good for the patient at the end of the day. Sometimes, for example, a patient came with his injury worse than before, because the doctor missed something. So, I

would try to do my best to help them. I would make a mark on the film, so the doctor would not miss anything.” (PS13)

Management also affects the professional identity of radiographers.

“Several times the in-charge [lead radiographer] calls us only if we have done something wrong. If a mistake is made, she calls us and says: You have done this. It happened that I said to the in-charge: You are pointing out only mistakes. It is the duty of the in-charge to advise staff and recommend improvements.” (PS01)

These findings highlight important factors that work to construct professional identities; a sense of responsibilities, tasks, structure, culture, resources in place and management. A conscious awareness of the role makes radiographers develop attitudes and behaviours relevant to their responsibilities. A lack of, or ineffective, regulations and systems leads radiographers to adopt additional tasks to their actual roles. The type of management and leadership affects professional attitudes and how radiographers behave in the workplace.

6.2. Deconstruction of Professional Identity

In addition, the findings of the current study have revealed a process of deconstruction of identity whereby radiographers lose some professional knowledge and skills. Four main factors have been shown to be the cause of this deconstruction of identity; moving from tertiary to primary care institutions, a sense of injustice and unfair payment, oppression, and job dissatisfaction. These factors were found to contribute in losing or giving up some of the professional competencies.

The participants' narratives show experienced radiographers moving from tertiary institutions to smaller primary care institutions, where they practise just basic skills, lose their advanced professional knowledge and skills.

"... I did not have a chance to practise on the work I liked because we only do general x-rays. At (hospital named), I would do CT and they were going to install an MRI machine so I was amongst the candidates who would work on the MRI. But I did not get the chance to. Yes, I missed those things." (PS06)

Management inconsistencies and unequal payment for radiographers who work in advanced institutions applying high levels of professional knowledge and competencies compared to the radiographers who work in primary care centres performing basic procedures. PS05 decided to move to a smaller institution and practise basic radiography.

"I mean, I was a person who did CT, dealt with emergencies and mobile cases. Moving here meant that I would only do plain routine x-ray procedures, and dealing with minor issues; referring people and entering requests data to the computer and those kinds of things. ... I left that because I got nothing in return. (Annoyed) Now, my colleague at (hospital named) gets the same salary I get, but he is working in radiation control area; his is in fluoroscopy and other things. There are no facilities, not even a discount card! [A privilege card as a member of an organisation which entitles its members for easy accessibility and/ or discount rate in certain centres.] There are no exclusive offers for (hospital named) staff. Nothing!" (PS05)

Oppression, is also a factor in the deconstruction of identity. For example, female radiographers who were forced to learn and perform ultrasound decided – after years of practice– to stop practising it when the management refused to give them what they perceived to be appropriate recognition.

“We were afraid [to refuse the ultrasound course], so we did the course. I liked it [performing ultrasound] a lot. I read a lot about it and I even wanted to do more courses but I could not because of my family. To be honest, they [the management] broke my heart. I felt that I did not want to work on ultrasound anymore. When my colleagues ask me to do them an ultrasound scan, I do it, but not for [standard clinic] patients anymore.” (PS06)

The organisational structure and interactions with management generally frustrated radiographers. The lack of job descriptions for radiographers in the MoH, and the absence of a professional body to support the radiographers were the main reasons behind the exploitation of employees, who were asked to perform tasks beyond what they considered to be their normal radiographic duties. This perceived exploitation by the authorities caused significant dissatisfaction in female radiographers in primary healthcare who were forced to attend courses in, and perform, ultrasound. PS06 expressed her dissatisfaction.

“I liked ultrasound, and I did not reject any patient. Sometimes, I was scanning more than 12 patients a day in addition to x-raying patients. I tried to move somewhere so I can work in ultrasound only, but I could not. Today, I got to the point where I hate ultrasound, and I do not want to do it. (Paused)I felt I just have to do it.” (PS06)

From field notes and the researcher's reflection on interviews, the deconstruction of individuals' identity was clear in those who were known to be active, motivated and high scoring students.

All these factors are directly linked to demotivation and job dissatisfaction. However, the findings disclosed radiographers' dissatisfaction in other areas. The culture of the particular workplace has an impact on radiographers' job satisfaction especially in ambitious graduates.

"So on the first day, I requested a transfer to (hospital named). ... It was not good for me especially that I was a fresh graduate. The cases were too simple, such as hand, wrist and chest. It was mainly extremities." (PS10)

In addition, workload affects job satisfaction. PS06 expressed her regret about moving from a busy tertiary hospital to a small primary care institution with a very low workload.

"I regretted moving from (hospital named) because there was not much work here. I was used to having a lot of work at (hospital named). I would work a lot. So when I came here, there was not much to do. Back then, there were not a lot of people in (an HC named). I came here in 2001. So sometimes I would only receive 2 or 4 patients per week, per week! I was like: What did I do?! Why did I move?!" (PS06)

The management and leadership style also plays a role in radiographers' level of job satisfaction. Authoritarian leadership that emphasises discipline and punishment reduces job satisfaction and staff retention, as in the case of PS01 who started to look for a job in another organisation or moving to a primary care institution to stay away from this kind of management style:

"I began to recall what I was told earlier, that I was crazy to work in a hospital like this. There was a time when I began to look for work in another hospital or move to a polyclinic in the Ministry of Health to avoid this [punishment] headache and issues [authoritative and bossy leadership issues]." (PS01)

"A punishment. This is what I felt in (hospital named), so I did not like working there. Thank God, two tough months passed. I felt the two months passed very slowly. I was relieved when they were over." (PS13)

A working environment that lacked employees of the same gender was also found to be a cause for job dissatisfaction in few cases.

"As I told you, I was not comfortable there because they were all girls. You know the issues with girls. They keep talking about their husbands and the housework, etc. I was the only male. I requested that I only work on the afternoon shift so that I would not meet them and hear their stories. (Laughing)." (PS10)

"At the (hospital named), there were no female radiographers, especially of my age. We were only two (paused), nobody else. There was no one that I can sit and talk to and make things easier (paused). Most of them were male." (PS02)

A key finding of the study, however, related to the absence of role definition, and task orientation reported by most participants, particularly in newcomers to the profession.

"Yes, no one told me to do that [observing how everything worked in the department]. The employees there knew that I had studied abroad so they expected that I would be able to figure out everything myself. They expected that I would be able to shoulder the responsibility and take care of the work myself. So, they left me alone in the beginning. That was not good." (PS18)

Radiography in primary healthcare and the extended care institutions does not have a chief radiographer officially. There are, however, radiographers designated to take the responsibilities of managing the radiography sections in those institutions.

Those radiographers will not be promoted to supervisor or department head which makes them dissatisfied with the situation, as found with PS13 who managed the radiography section in a polyclinic for twenty years:

“Because if I was just a radiographer as my current job title states, I would not have the headache of being the in-charge [radiographer] and I would not have to attend meetings or anything. I would just do my work and go home. I am running the department very smoothly with almost no problems, so I think the authorities concerned should be more appreciative. Some of my schoolmates are heads of x-ray departments in hospitals now, like my friends: (a person named), (a person named) and (a person named). They all have job titles. I was the best in class, so I feel like a loser. However, I settled for the situation now anyway, as I am retiring in two years (the participant sounded subdued).” (PS13)

PS14 was upset and demotivated with the changes in the promotion provisions that took place in 2004 when the Ministry of Civil Service issued a new update, creating a new financial grade, which is ‘grade five’. The new policy affected him. He was in financial grade six and was waiting to be promoted to grade four in the same year, but he was promoted to the new grade five. This created a gap of not less than five years with his colleagues who were just promoted a year before to grade four, since promotions are every four years in the civil service system in an addition to a one-year processing period.

“When we [radiographers who were on study leave abroad] came back, we were shocked with the new resolution and with the grade. I was in grade six, while those who started working only one year before me were in grade four and one grade in between. It was oppression. I did not even feel like working for six months.” (PS14)

Another cause of job dissatisfaction is that radiographers working in tertiary institutions, and working shift duties, despite being experts in various imaging

modalities and performing complex professional skills are paid no more than those radiographers working in secondary or primary healthcare institutions, as explained by PS05 and PS01.

“In 2004 when I graduated, my salary was O.R. 475 [£912 as checked on the 03.01.2018]. At the end of 2012, the salary was 675 Rials [£1297]. In about 11 years, the difference was very little, and of course, life was getting more expensive. I really exerted much effort and I wished that they would appreciate it. I did not ask for much. But there are things the officials could do to satisfy the employee and show appreciation of his work, reward him for his effort in comparison with those who work in the extended healthcare, primary healthcare, and the secondary healthcare. They could compare them to evaluate everyone's work. I do not know if I would be accountable for that, but the ministry shows more appreciation for the employees of other hospitals. We heard that the employees of the University's Hospital got bigger salaries, although some of them were my classmates. They got more than O.R 900 [£1729]. That's about 180 [£346] or 200 Rials [£384] difference. They would make a difference for me. I exert much effort, so I think I deserved something.” (PS05)

“Also, a radiographer working in health centre x-rays three or four patients compared with a radiographer who stands x-raying patients from 7:00 am until 3:00 and receives the same salary.” (PS01)

Summary

Professional socialisation is the process through which novices learn their roles and acquire the knowledge and skills that formulate their identity (van Maanen and Schein, 1977; Anakwe and Greenhaus, 1999; Åkesson and Skållén, 2011). Achieving identity and commitment to the profession is determined by aspects of the socialisation experience and the anticipated values, attitudes and behaviours

learned. The intended goal of professional socialisation is the formation of a professional identity and self-conception as a member of the profession (Lai and Pek, 2012). The radiographers in this study, however, were found to be demotivated and dissatisfied. Professional status is correlated with job satisfaction (Gronroos and Pajukari, 2009). The current study uncovered demotivation and dissatisfaction as core drivers for the deconstruction of the Omani radiographers' identities.

In conclusion, the current study disclosed a poor environment for promoting professional identity among Omani radiographers as a result of negative professional socialisation. Unstructured socialisation processes and the lack of availability of a supportive culture, structure and resources, contributed to this poor professional identity (Saks and Gruman, 2011).

Conclusion of the Findings

The study has revealed a significant degree of chaos in radiography practice in Oman which reflects directly on the radiographers' professional socialisation process and their status as a professional. The lived experience of the Omani radiographers also demonstrated the absence of professional regulations, standards, code of ethics and an agreed scope of radiography practice. Radiographic culture was not found to be well defined in terms of values, norms and behaviours and this is reflected in radiographers' attitudes and behaviours. The results also suggest the absence of a professional structure that supports radiographers, and indicates that this affects radiographers' dignity and autonomy. The findings suggest a negative professional socialisation of the radiographers which inhibited the construction of professional identity.

Different institutions within the MoH have their own ways of managing radiography practice and radiographers, however, as found in the issues of radiation protection, radiographic practice, job descriptions and annual appraisal. Radiography practice

in Oman lacks regulations, standards and values. There are several factors which participants observed as contributing to this status:

1. The absence of a professional regulatory body to take care of radiography as a profession by putting in place mechanisms to plan, regulate, monitor and evaluate the practice and the practitioners.
2. The absence of role models and effective leadership to guide and support the radiographers.
3. Ambiguity in the occupational regulations causing job dissatisfaction in radiographers.
4. A sense of radiographers as employees/ skilled workers recruited to serve a particular need. They are not promoted to the status of professionals.
5. The mix between administrative and professional posts created ambiguity in radiographers' roles.
6. The absence of a mechanism to shape and form radiographers' identity and, therefore, the identity of Omani radiography practice.
7. The multicultural nature of institutions had a significant impact on the professional status of the Omani radiographers and therefore on Omani radiography practice.

In summary, the Omani radiographers are revealed to socialise professionally by default in the absence of effective regulations, a professional body, and code of ethics, thus facilitating individualism and a prolonged process of transition and integration. Radiographers are left alone to learn their roles and to manage their uncertainty in the absence of a job description and effective appraisal system, thus leading to role ambiguities. The study indicated several undesired outcomes of negative professional socialisation in Omani radiography. Radiography culture is ill-defined with stereotypes, favouritism and spying. Radiographers also adopted negative attitudes, including being dissatisfied with the salary and management, and becoming reckless in justifying exposure to ionising radiation. In addition, radiographers do not have control of their profession and are not practising professional autonomy. Negative professional socialisation also impacted

significantly on their professional identity and facilitated its deconstruction as a result of job dissatisfaction.

Chapter Seven: Synthesis of Findings and Conclusions

This chapter reflects on the findings of the current study which aimed to understand professional socialization in Omani radiographers working in the MoH through a phenomenological enquiry. It offers a critical discussion of the findings and relates them to the extant literature. The chapter is organised to discuss the findings based on the three objectives of the study:

- (1) The radiographers lived experience.
- (2) The process of constructing the Omani radiographers' professional role identity.
- (3) The impact of Omani radiographers' professional socialisation on professionalism.

Deconstruction of the radiographers' identity is revealed in the participants' lived experience and therefore, included in the discussion. The chapter also explores the limitations and implications of the study.

7.1. Limitations of the Study

Although the study has achieved its aim and objectives, there were some unavoidable limitations.

Although phenomenology proved to be a useful research approach for studying the lived experience of Omani radiographers, and despite the pilot study giving the researcher a training opportunity to practise interviewing for hermeneutic phenomenology, achieving absolute bracketing was not possible, particularly with quiet and naïve participants, and bearing in mind that phenomenological inquiry was a new experience for the researcher. Fischer (2009) argued that bracketing perspective, in reality, can never be ruled out. Bracketing is adopted to help researchers to identify their perspectives and to examine them, sometimes then knowingly shifting stance. The bracketing is about acknowledging the researchers'

evolution engagement in the development of consensual understandings of research phenomena and processes. Involvement and engagement formulate knowledge in most qualitative research.

Social factors are another limitation of the current study, specifically the researcher's relationship with the participants as a tutor, and as a senior member of the radiography profession in Oman. To minimise the effect of this social factor, the researcher presented herself as an investigator and explained to the participants their rights to voluntarily participate in the study and withdraw at any time.

In addition, the investigation of the contextual documents to support and understand the participants' claims did not reveal an English version of the MoH 2014 law. The researcher had to translate the regulations issued by the MoH for the purpose of this study. Thus, the translation does not carry official or legal status.

Finally, in spite of the advantages of the researcher being the translator of the study interviews, the researcher is not a professional translator, and did not have previous experience in translation. She remains unskilled in and unfamiliar with the tactics of translation. However, the researcher studied in English to MSc level in the UK and taught in English the radiography programme in Oman. Her skills in English were applied.

7.2 The Omani Radiographers' Lived Experience

Phenomenology was a useful research approach for studying the lived experience of the Omani radiographers (van Manen, 1997). This phenomenological inquiry used in-depth interviews to understand the lived experiences of the radiographers. Through the use of a qualitative methodology and analytic theory, meanings were found in the radiographers' narratives that offered an understanding of the principals' lived experiences, and enabled the study objectives to be addressed

The insights gained into the professional socialisation of Omani radiographers have the potential to influence national policy and enhance both radiography practice and patients care in Oman.

7.3. Regulations, Policies and Structure

Radiography in Oman is not regulated by professional regulations and standards and there are no role models to guide the values and attributes of radiography. Thus, the lack of guidelines that govern the relationships and mutual respect among professionals at all levels create professionals who do not know their professional boundaries. The findings show the absence of policies and code of ethics that bind radiographers as professionals. The findings disclosed a lack of respect and dignity amongst radiographers and in radiographer-management relationships. This also suggests negative relationships and poor socialisation, since the environment for positive socialisation were not accomplished (Kramer, 2013; Lai and Pek, 2012; Spanu et al., 2013; Waterhouse et al., 2014).

Professional regulations have a crucial role in setting and enforcing the standards of behaviour, ethics, and competence of professional day-to-day interactions.

Professional regulations are developed by independent professional bodies. They are statutory systems, but independent from government. They are established to maintain a registration of all licensed practitioners, with powers to remove those found not fit to practice. They also have a role in medical education, including a degree of control over the syllabus for professional programmes (Greenwood, 1957; Moore, 1970). In the UK, There are nine regulators that regulate 32 professions by law. They share the following functions (Pickett, 2017):

- set standards of conduct, ethics, and competence which crucial for registration and licensing to practice.
- check the quality of education and training courses to ensure trainees develop the required competencies to practice competently and safely.
- maintain a register of professionals.

- investigate complaints and make decisions on the professionals' fitness to practice.

In Oman, there are a number of medical and health associations established under the supervision of the Ministry of Social Development. The OAR was part of that list. They are not governed by any sort of medical or health regulation, because they do not exist. The MoH maintains the professional registration and licensing of employees in its institutions. The OMSB that was established in 2006 by a Royal Decree primarily to set standards for the postgraduate medical education of healthcare professionals to improve the standards and the quality of healthcare in Oman. It does not regulate health professions. Its role was found to be in accrediting CME activities, but without having an effect on the professions and professionals. For example, it is not known how the credit points attained and utilised nor what happens to those who do not obtain the required CME point.

It is almost five decades since the establishment of the MoH and the actual beginning of the radiography and other medical and health practices in Oman. It is time for professional regulatory bodies to be established and regulate these practices to ensure the safety of Omani society. If the OMSB take that role, it has to create a registrar to maintain a list of those who are licensed to practice and to formulate standards of ethics, behaviour, and competency and ensure only those who meet them are registered as professional. The professional associations in Oman would, therefore, register and operate according to the regulations and standards set by the regulatory bodies.

The absence of professional regulations in Oman hindered professional control. It permitted the imposition of unrelated tasks on radiographers in practice such as ECG, institutional record keeping, and high level radiation protection supervision (a task for a medical physicist). It also inhibited professional autonomy by not supporting radiographers to exercise professional judgment. For example, justifying radiation exposures. When professional regulation is established, it will allow the radiography and other individual professions to attempt to build and sustain

exclusive control over their expertise and status and clarify boundaries for each profession.

Furthermore, the absence of professional regulation hindered the development of a unique and defined culture of radiography in Oman. It is one of the reasons behind the weak culture of radiography. It did not facilitate or allow the development of systems or structures in place to pull all radiographers from different backgrounds and schools into a shared culture of defined values, norms and behaviours. The current research disclosed a multicultural radiography service that did not develop any sort of structure to control the practice and the behaviour of its members. The absence of standards of ethics and behaviour, in addition to the absence of job descriptions and a defined role for mentors facilitated defaults in newcomers which impacted negatively on their socialisation. The multi-cultural workforce in radiography in the absence of binding values and behaviours allowed radiographers from different backgrounds and schools to demonstrate their own values, attitudes and behaviours without being corrected by any means. The context also allowed novice radiographers to integrate into this culture and adopt its attributes as seen with PS01, PS15 and PS19. Radiographers socialise professionally by default in the absence of a guiding structure, mentorship, or role models. Thus, unethical behaviours such as stereotyping, spying and others were found in radiography departments (Haas-Wilson, 1992). The relationships in radiography are characterised by distrust, disrespect and fragmentation.

An important finding of the study is the absence of job descriptions for radiographers in the MoH, which caused MoH employees to lack clarity about their roles. This in itself generated considerable stress, resulting in negative socialisation because the stress has a negative effect on the workplace environment. Job description facilitates in making staff duties align with organisation and profession visions. It is an important piece of documentation that a practitioner must have. It outlines the intended role and responsibilities and is used to determine the need of training and development when expectations or requirements are not being met (Saks and Gruman, 2011). It clarifies and enhances communication between the

organisation and the practitioner, and it is critical in supporting nearly every employment action, including hiring, compensation, promotion, discipline, and termination. It is also used as a means to communicate expectations and become an important tool for performance evaluation.

Having a clear job description allows understanding of the responsibilities and duties (Saks and Gruman, 2011; Lai and Lim, 2012; Strouse and Nickerson, 2016) not only for the professionals but also for the institutional authorities. Many practitioners' issues found in this study wouldn't take place if there had been clear guidelines from the start. For example, boundaries, workload and duty hours in the remote areas. If the participants had clear and official job descriptions they would have had an understanding of what is expected of them and what they should expect from the authorities. This would facilitate satisfaction and therefore, would increase productivity. A good job description is also used as a foundation for carrying out performance evaluations and setting goals, salary increases, and growth paths. Having it in place could facilitate the effectiveness of performance evaluation in Oman and resolve the chaos in managing radiographers' job evaluation. The practitioner should have a copy of his job description as part of performance evaluation to ensure that he is assessed based on the standards of ethics, behaviours and competencies set by his profession and clarified in the job description, and to discuss any modifications and training he needs to meet them.

Having the right people in the right positions performing their responsibilities correctly is vital to promote good practices for the profession. Radiographer newcomers and experts enrolled in new posts should be given a copy of their job description right from the beginning so they know their roles and responsibilities and what will be expected of them, including those in management posts

At the level of the individual radiographer, the participants disclosed issues of lack of professional commitment, lack of discipline, irresponsibility, reckless attitudes and the misleading of supervisors. This could be directly related to the quality of management in radiography, along with the absence of mechanisms to shape

professional behaviours and roles as claimed by Greenwood (1957). The attitudes and behaviours that the participant radiographers demonstrated suggest negative socialisation, which reflect the values and behaviours of the social group. The behaviours and attitudes of Omani radiographers can be explained as a result of negative socialisation and dissatisfaction arising from the workplace environments and the absence of social control mechanisms. Furthermore, this finding raises a concern about the availability of role models and mentorship in the workplace. Although the participants had undergone 'internship' to facilitate their transition to professional, they did not have mentors to act as role models and help them to assimilate the accepted values and behaviours of the profession (Anakwe and Greenhaus, 1999; Mackintosh, 2006; Dinmohammadi et al., 2013; Rejon and Watts, 2013; Leong and Crossman, 2015). The absence of structured mentorship facilitates the expression of individuality, which can contribute to negative socialisation (van Maanen and Schein, 1977; Saks and Gruman, 2011). Such a culture creates radiographers who participate in unprofessional acts such as verbal squabbles, absenteeism and shouting, as evidenced in the current study. Mentoring programmes allow capitalising on the human resource. Developing practitioner skills and competencies strategically contributes to organisational and professional growth because a structured and staged approach to mentoring shows organisation's support, interest, and concern for a professional's potential with the institution. It demonstrates to professionals that management is willing to invest the time and resources necessary to help them succeed in their careers. Novice practitioners should have someone that they can meet with to ask questions. The mentor can be a sounding board, helping sort out options and giving advice on managing professional matters. The novices should have someone who can be sympathetic with them when they face challenges. Mentorship programmes, therefore, facilitate a culture of support and professionalism. In return, professionals are more likely to be more productive and loyal to the organisation and the profession. In addition, mentorship programmes facilitate in developing role models and leadership skills in those who are given these responsibilities.

The healthcare literature reports 'reality shock' among newly qualified practitioners (Leong and Crossman, 2015), and the current study revealed that some radiographers are not comfortable with some of the professional norms such as assisting patients in conducting Barium enema, dealing with radiation dose in fluoroscopy and performing the shift duties, all of which suggests an unwillingness to assume the full responsibilities of a professional. Although literature has reported this finding as common (Schaubroeck et al., 2013), it emphasised that the availability and clarity of information to clarify expectations, reduce uncertainty and improve self-concept and confidence (Anakwe and Greenhaus, 1999; Ashforth et al., 2007; Kramer et al., 2013; Saks and Gruman, 2011). These findings of the current study can be accounted for by the absence of structures to guide and support practitioners in their early career. They are job descriptions, mentorship and preceptorship, and role models. These findings are consistent with the literature (Rejon and Watts, 2013; Leong and Crossman, 2015). The context of Omani radiography facilitates a default position where junior radiographers are left alone to manage their uncertainty (van Maanen and Schein, 1977) in the absence of all the guiding mechanisms that they can rely on. The first socialisation process a professional trainee undergo is when he joins a professional programme where he is first introduced to the standards, values, behaviours and the expected roles of the profession (van Maanen and Schein, 1977; Cornelissen and van Wyk, 2007). After graduation, he undergoes a process of consolidation of what is learned in his programme through different means including policies, job description, mentorship, role models and interactions with experts. The findings, however, raise questions about the quality of professional training and the degree of preparation of graduates to take on the full responsibilities of being a qualified radiographer. Professional programmes, through their curricula and clinical placements, are expected to prepare students for the expected role and introduce the professional norm. Supporting structures such as mentors, preceptors and job descriptions also have a role in clarifying role responsibilities and expectations. The absence of structures and professional regulations implies this to be a continuing problem for Omani radiography. Healthcare literature reported a phenomena called 'reality shock' when graduates were immersed in an unfamiliar environment (Ewens, 2003;

Leong and Crossman, 2015) or as a result of a theory-practice gap and conflict arises between their knowledge and skills acquired in the educational programmes and the reality of competencies required in their workplace (Lia and Pek, 2012). A culture shock also occurs as a result of differences in values and behaviours taught and acquired from training programmes and the unexpected values and behaviours experienced in the workplace, as found in the current study. The challenges become more severe when they also do not have any means to support their transition and manage their uncertainty. The absence of structure to guide young radiographers to the right values, attitudes and behaviours in the workplace facilitate them learning the culture of the workplace as a means of coping and they may acquire negative attitudes and behaviours, as seen with PS14, PS15, and PS19. This reinforces the importance of developing professional regulation, standards and structures to guide professional values and behaviours and to build a strong culture. In future, the professional culture should facilitate newcomers who can be immersed smoothly in the values and behaviours of the organisation and could assist in correct any of their misunderstandings. From the participants' narratives, there is clearly a problem in organisational structure in the MoH in terms of its institutions, manpower, authorities, policies and regulations. It is outside the scope of this study to discuss the organisational structure of the MoH, but the working system applied in the remote areas needs to be reconsidered. Manpower distribution is based on the patient throughput of an institution. In remote areas, some primary institutions that employ single radiographers, open radiography services 24/7 hours. Radiographers working in those institutions covered the services for years, resulting in significant challenges and social and psychological impact. The MoH adopted a decentralisation system of administration and financial issues in health governances. Logically, the success of the decentralisation requires strategies such as training and preparation of regulations, policies, and structures in place for guidance and support. In addition, the term 'best utilisation of resources' needs to be defined, and considerations can be applied in remote areas to consider humanity and the social factors of the practitioners in those areas.

At the professional level, the absence of a professional body that can look after its members' interests is a real problem. Radiographers are employees of the MoH and work under its regulations and the influence of the organisational authorities. In the cases where radiographers face challenges with the employing organisation and its authorities, radiographers need support from their professional body to stand up for their rights, as emphasised by Corfield (2000) and Decker and Iphofen (2005). The lack of support among radiographers for their professional body (OAR) at the early stages of its establishment and throughout its short existence was one of the factors behind its failure. There were no studies or reports found in the literature search on the status of medical and health allied professions in Oman nor the extent to which their associations are successful in promoting and supporting professions and professionals. However, all the professionals working for the MoH are subject to its laws and regulations, and all the professional societies are subject to the supervision of the Ministry of Social Development, similar to the OAR. They may face similar challenges to the OAR, regarding the differences in how these professions and associations are managed by their leaders. In comparison, the status of medicine may be in a slightly better position because of its political dominance in health care and its power is manifest through the professional autonomy of doctors.

In summary, both the MoH, as an employing organisation and the OAR as a professional organisation, failed to put in place structures to protect radiographers' rights, thereby, contributing to the current 'chaos' in the professional socialisation of Omani radiographers.

The context discussed above leads to a conclusion that radiography in Oman cannot be determined as a profession. If professions have jurisdiction to govern a body of knowledge and the practice of that expertise, with a normative interest to ensure the safety of society (Sparkes, 2002; Page, 2005), Omani radiography is primarily struggling over professional boundaries, professional control, autonomy and consideration of what counts as ethical practice. To come out of this chaos, professional regulation should be established to set boundaries and to ensure quality services are delivered to the people in Oman.

7.4. Radiography Culture in Omani

Professional socialisation is a process of learning the orientations, resources and behaviours of a professional group (Bazerman, 1994). It involves learning the culture and relationships to motivate and self-conceptualise to become a full status professional. The research revealed a radiography culture in Oman that is not defined by shared values, norms and standard behaviours. Its relationships are characterised by distrust, disrespect and fragmentation. This culture developed as a result of ineffective organisational regulations that govern radiographers, alongside the absence of functional professional structures to guide practitioners to expected and acceptable behaviours. In addition, the absence of mentorship, leadership and role models facilitated a default socialisation of novice Omani radiographers. All those factors contributed to the lack of professional values, attitudes and relationships in radiography. Bringing newcomers into the profession is of a challenge in the Omani radiography culture. The lack of consistent definition of culture and what radiographers represent is an issue. In that, it leads to a lack of clarity that devalues radiographers' work and their professional status.

Building a healthy professional culture is key to developing the professional manpower. Building a professional culture is achieved through developing effective structure and policies and ensure the availability of all important resources such as job descriptions and mentors, leaders and managers who enact role models for the newcomers and demonstrate the values and behaviours of the profession. Lack of resources causes stress and burnout (Gronroos and Pajukari, 2009) which facilitate a default Position in socialisation and job dissatisfaction. Understanding and responding to the needs of creating a healthy and strong professional culture would improve workplace satisfaction, prevents adversarial dynamics, and the practitioners could focus their energy on delivering quality services.

It was evident from the study that radiographers' discipline, punctuality and the level of respect among radiographers and management was contrary to the accepted notion of a profession. This finding supports the work of Nikic et al. (2008), Rejon and Watts (2013) and Leong and Crossman (2015). In the presence of legislation and licensing system, professionals work accordingly to maintain their

registration (Kramer et al., 2013; Lai and Pek, 2012). Re-licencing is an important element in gearing improvements in professional attitude, behaviours and performance. It is a tool that enables practitioners to demonstrate professionalism and improvement in their practice. Professional regulators investigate a professional's fitness to practice before relicensing. These can include allegations regarding their health, conduct or competence. Thus, these systems are required to be developed and enacted in Oman with legislation to ensure that radiographers (and other professionals) demonstrate professional standards of ethics, behaviour and performance. In addition, ineffective management contributes to the cultural social order through the salience of normative behaviour in radiography, exactly as expressed in the literature (Parsons, 1939; Edmondson, 2004; Tucker, 2007; Spânu et al., 2013). If these behaviours persist in radiographic culture, they will be inherited for future generations, and this would not serve the best interests of Omani radiography and the quality of care for society.

Management and leadership roles underpin the professions and the society. Promoting professional practice and its profile are central to their roles as they are expected to work strategically to lead their organisations and professions toward intended goals and performance targets (WHO, 2008). Leaders have a stronger influence on the behaviours and attitudes of their staff (Edmondson, 2004). Therefore, they should be hired based on characteristics and attributes that would ensure the achievement of the organisation goal and promote the profession. They should be able to lead the performance, attitude, behaviour and practice of their staff toward the goals of the organisation and the profession. However, this cannot be achieved by hiring people with the right attributes only but also they should be provided with the resources that facilitate their roles and develop their self-concept as leaders; such as an effective organisational structure. Their appointment should be official and supported by job descriptions, policies and guidelines. This will raise their self-esteem and their performance, which is going to be reflected in their staff and the workplace environment. Contrary to this an ineffective structure and absence of supporting resources demotivate managers and make them surrender

easily to the challenges they face in their work to survive until they are due for retirement, such as in the case of PS13.

In this study, the experience of Omani radiographers cites 'favouritism' and 'imposing fear on the radiographer' as features of the manager-radiographer relationship. Managers favour some radiographers and invoke fear in others. There are some possible explanations for this finding. Firstly, managers were found to be mainly diploma holders and did not receive any official training to support them in their roles. Secondly, the lack of role clarity promotes unexpected attitudes and behaviours. Thirdly, the absence of criteria and guidelines for the selection of candidates to attend events allows some managers to favour some radiographers over others, or to give preferred radiographers a high appraisal score to push them into the scholarships. Fourthly, the absence of a regulatory body, professional standards and official mechanisms that guide and monitor values and behaviours. A culture of favouritism affects relationships between radiographers and managers and between the radiographers themselves. Workplace favouritism creates a notion of unfair treatment, and can generate anger, mistrust and insubordination, as evident in the participants' narratives in the areas of relationships with management and peers, professional collaboration, promotions, annual bonuses, performance appraisal and scholarships. Brahms and Schmitt (2017) asserted that a norm of conflict in workplaces facilitates favouritism. For example, conducting performance evaluation and bonus procedures confidentially and the lack of transparency in the results allows managers to exploit these gaps in their own interests. Therefore, the study suggests that the core responsible factors for the current radiography culture rely on the absence of effective regulations and procedures that ensure only competent and ethical individuals are assigned to practice. For example, licensing and relicensing procedures, and promotion criteria as a prerequisite for the roles as claimed by Haas-Wilson (1992). In addition, the absence of professional standards to compel professionals to adhere to ethical conduct is also a factor. Regulations and standards will guide behaviours of those who are already in the service, assure that only those with the right attributes are in the right roles, and therefore will directly serve the profession, organisation and the society.

Unexpectedly, a culture of stereotyping was uncovered in Omani radiography, which demonstrated direct discrimination between radiographers. The discrimination/ racism seems to come at least as much from the Omanis towards the expatriates as vice versa. Expatriates were recruited on the basis of passing a licensing interview organised and conducted by the MoH, similar to the Omani graduates who had studied abroad. Radiographers' attitudes and behaviours can be explained by the absence of regulations, professional standards and a relicensing system. After passing a licensing interview, newcomers should be oriented to the values, norms and expected behaviours of the new culture (Neiterman and Bourgeault, 2015). Although Neiterman and Bourgeault claim that resocialisation does not erase the old identity completely, but rather modifies and adjusts it to fit the expectations of the new culture, in the context of Omani radiography, where there is a general absence of values and standards that bind radiographers and shape their attitudes and behaviours, and in the absence of monitoring and controlling mechanisms, it is possible to suggest that expatriates do not modify their previous identities when they join the practice in Oman. It is also true for the Omani radiographers in the service. This resulted in poor working environments, fragmentation in the relationships with the local radiographers in the same workplace and a culture characterised by mistrust. The findings raise concerns about the licensing and relicensing system. It is beyond the scope of the study to discuss the licensing system, but this provides a suggestion for further studies.

7.5. Professional Status of radiography in Oman

Professional regulations, standards, values and behaviours are vital resources for shaping the identity of professionals. Radiography in Oman, however, is presented as an occupation that serves other professions. This contributes to the default socialisation of newcomers and the demonstration of unprofessional values and behaviours in the radiography culture.

The findings of the study revealed the impact of both the culture and structure of radiography on the radiographers' job satisfaction and therefore on their professional socialisation.

Regarding the culture, the Omani radiographers expressed their dissatisfaction about the norms, values, behaviours, relationships in the workplace, along with the workload, type of experience and type of patient. Work control and goal commitment are the predictors for job satisfaction according to Gronroos and Pajukari (2009). The deficiencies in the professional and organisational structure that support radiographers to develop from novices to becoming full status professionals affects the culture and work control and therefore, the radiographers' commitment. The culture provides the ground rules for everyday conduct in terms of what is expected and what is accepted. It guides values and behaviours, and shapes personal relationships in the workplace. The Omani radiographers were brought up in cultures that did not have defined standards or identities in terms of values and behaviours. Nor were there regulations, mentorship, effective leadership or role models to guide them in values and behaviours, and to clarify their roles. Thus, issues such as lack of respect of peers and superiors, lack of professional commitment and job dissatisfaction were found in Omani radiographers, indicating negative socialisation (Anakwe and Greenhaus, 1999). They were left to professionally socialise by default in the absence of supporting structures and institutional tactics (Saks and Gruman, 2011). The socialisation of the Omani radiographers can be referred to as an individualised socialisation as per the organizational socialization theoretical models of van Maanen and Schein (1977), where the individuals influence upon the organisation through creating a culture in a working place based on their own values and behaviours. The individuality and the context of radiography in Oman led to a demotivated and dissatisfied radiography workforce, affecting the quality of the radiography services and radiographer retention in their institutions and in MoH, which results in the deconstruction of competencies and the loss of experts.

7.6. Radiography Leadership and Management

There are various leadership and management styles employed in Oman radiography revealed in the current study. In general, although there are few good

managers described, the majority are characterised by strict discipline, lack of management skills and attributes, and poor manager behaviours. They also challenge radiographers and cause stress and dissatisfaction. This situation is perpetuated by an absence of relevant procedures for appointing radiographers to leadership and management positions, and ensuring that those who possess the right attributes are assigned to the key roles.

Participants disclosed the impact of poor management behaviour in the form of disrespect in the radiographers' managers' relationships and in the ability of radiographers to freely discuss practical errors. This kind of work culture is associated with the authoritative leadership style (Edmondson, 2004). According to Edmondson, the behaviours of managers influence practitioners' beliefs about the consequences of errors and their discussion by how historically incidents were handled and the conclusions were drawn, and which then are strengthened as beliefs., Edmundson also found that in authoritative leadership there is a perception that when something indisputable leads to avoiding such discussions. This authoritative environment contributes to a culture of fear or of openness, which can be self-reinforcing, which impacts on motivation and level of satisfaction.

The MoH as an employing organisation failed to capitalise on the direct impact the managers have in shaping professional cultures. Professional cultures represent the culture of the organisation. They also have a major influence on professionals' satisfaction and success of the professions and thereafter the success of the MoH as the organisation. Managers are usually appointed based on a set of criteria and leadership attributes to accomplish the mission of the organisation. This did not happen in radiography which influenced the degree of radiographers' satisfaction as found in the study. The authoritative culture, favouritism, spying and stereotyping described by study participants made radiographers struggle in figuring out what they should do and how they should do it. If this culture is present in radiography as a result of an absence of an effective system in the MoH to recruit competent managers/ leaders, the findings may suggest similar cultures in other health professions in the MoH. Radiography managers were seen as lacking in leadership

and management skills, they were not considered trustworthy. While trustworthiness is a result of personality and competence, trust is about believing in someone and having confidence in them (Kane-Urrabazo, 2006). The level of distrust radiographers had in their managers can be linked to the disrespect and lack of professional commitment managers demonstrated. Therefore, trust is a crucial element in the socialisation process and is linked to predicting the level of radiographers' satisfaction and success of accomplishing the mission of the organisation. The MoH, therefore, should invest in managers and create leaders to ensure accomplishment of its mission.

Furthermore, in the context of Omani radiography, where radiographers have fewer resources to defend themselves e.g. such as a trades union, this kind of management style and work environment causes job dissatisfaction and makes radiographers want to leave the institution or the profession as a whole. In some cases, it means losing competent radiographers who have advanced skills. The study findings support the claims of Nikic et al. (2008) and Leong and Crossman (2015) on the impact of the work environment on commitment and job satisfaction. That is, professional commitment and retention rate are high as a result of high levels of job satisfaction. Staff will integrate and contribute to organisational objectives when their expectations are met, they are satisfied and experience positive socialisation.

In addition to the absence of effective regulations and a professional regulatory body in Oman, conclusions about management styles and attributes can be drawn from the lack of preparation for the role. The analysis revealed that the managers in this study did not have any kind of training in management or leadership. They were not selected by set criteria or attributes and were not supported by standards and job descriptions to clarify their roles and responsibilities. Surprisingly, none of the master's degree holding participants held a management position in their institutions. Four participants in the study held management positions in their institutions; one with a bachelor degree and three with diploma certificates. A

further research that survey qualifications of managers and senior staff is suggested to build up knowledge of radiography in Oman. Furthermore, the study found that a newly qualified radiographer may be assigned to manage a radiography section and supervise senior staff. Thus, the research findings suggest that radiography in Oman is managed by default. The results support the findings of Edmondson's study (2004). In both cases, the management has a negative impact on socialisation and professionalism.

In conclusion, the findings from the lived experience of the Omani radiographers highlighted the complexity of the professional socialisation process. Novice Omani radiographers are brought up in a profession that does not have regulations, standards, structure and a defined culture. This situation prolonged the transition and integration processes. It made novice radiographers face challenges in terms of finding resources and information to reduce their early career uncertainty and anxiety. They socialise by default to learn their roles. The lack of supporting regulation and structure also leads to a loss of professional control, exploitation of radiographers and loss of professional autonomy. It also impacted negatively on public safety. Omani radiographers experience negative socialisation and they work as followers to their authorities and other professions.

The absence of the role of a professional body or a trades union, the context of the radiography culture, the ambiguity of regulation, and absence of radiography job structures and descriptions, ineffective leadership, mentorship and role models, has resulted in Omani radiographers adopting and developing unprofessional values and behaviours and challenging the universal norms of radiography practice. For example, radiographers hold professional responsibilities to justify radiations exposures and insert enema catheter in the absence of nursing service. The context presents a picture of a negative professional socialisation process among Omani radiographers that does not facilitate a construction of a professional identity. Radiography practice in Oman cannot be described as a profession, nor can the Omani radiographers be described as professionals.

7.7. Study conclusions

This section presents how the researcher's thinking has developed and how the study advances knowledge of Omani radiographers' professional socialisation. The section also discusses the implications of new insights for the concerned parties who play a role in the professional socialisation process and in shaping the identity of the Omani radiographers; and associated organisations and institutions, professions, individuals and education. In addition, a set of recommendations for potential theoretical developments and further research are offered.

The outcome of the analysis of the radiographers' lived experience brought two main conclusions; that Omani radiographers go through a complex and negative socialisation process, and they cannot be categorised as professionals.

This research has employed a method of inquiry that contributes to an understanding of the lived experience of Omani radiographers. By focusing on professional socialisation, the study highlights relevant elements that have been linked to the outcomes of the process. These are organisational, individual and educational.

7.7.2. Individual Elements

The research revealed radiographers' socialisation process to be essentially a default position, leading to individuality among some novices. Newcomers should demonstrate proactive behaviours to learn their roles and the new workplace culture. They should demonstrate self-efficacy to seek for information from the available resources such as policies, mentors, senior colleagues. They also have to work on other strategies to learn about their ideal role in the absence of supporting facilities. Proactive behaviours facilitate adjustment (Saks and Gruman, 2011), clarify expected role and behaviours, reduce uncertainty and improve self-concept and confidence (Kramer et al., 2013).

7.7.3. Education Element

The study also highlights some educational implications. The findings revealed many areas that can be enhanced by training programmes. These include study of professionalism, code of ethics, biological effect of radiation and radiation protection, leadership and management, mentorship and preceptorship, when and how to give constructive feedback, effective appraisal systems, clinical governance and how to structure a positive orientation/ induction programme. The research also disclosed some advance skills of practising radiographers that can be consolidated through accredited qualifications. Such as IV injection, image interpretation, Ultrasound, radiation protection supervisor/ officer, CPD coordinator.

7.8. Recommendations

This study is the first of its kind to study the lived experience of radiographers in Oman. It highlights many areas that impact not only on the radiographers, but also the service, consumers, the profession and the MoH as a service provider. The phenomenological approach adopted in the study to understand the radiographers' professional socialisation generated lots of information in categories that were beyond the scope of the current study, but which should be considered for further research. For example, CPD activities, their relevance and their impact on the radiographers and the service. The accreditation system and the licensing methods and procedures are also areas to be researched in Omani radiography.

Further studies should to be considered to investigate the outcomes of this study so as to expand the knowledge in those areas:

A quantitative study could be undertaken exploring radiographers' job satisfaction to include a larger radiographer population and to determine various parameters that influence job satisfaction and identify recommendations to improve the level of job satisfaction.

A study aiming to investigate the effectiveness of leadership in achieving MoH goals and in promoting radiography.

A research study to investigate the impact of the appraisal system on meeting its intended objectives.

A qualitative study to investigate the effectiveness of the patient throughput policy in quantifying the radiography workforce in remote areas and the impact of consumers' satisfaction with radiography services.

An investigational study on the stereotype in MoH institutions and its impact on work quality and the achievement of the organisational goals.

As per the findings of the current study, the following are recommendations proposed by the author that will work towards promoting radiography (and other health practices) in Oman as professions and would improve the lived experience of the professionals.

- The MoH should revise its occupational regulations, policies and procedures. To ensure their effectiveness, the MoH should revise its regulations, policies and procedures and consider the challenges of both managers and radiographers (and other professionals). In order to promote the principle of equality, all policies and procedures should be made transparent to all. Incentive and promotion procedures should be criterion based and opportunities should be made available to all. The MoH also needs to train its staff on its procedures to ensure a better understanding of the policies and their applications. It should also develop monitoring strategies to observe their performance and effectiveness.
- An independent and officially regulatory body that regulates professional bodies in Oman should be established similar to HCPC in the UK. Professional regulation will help Omani medical and health professions to govern a body of knowledge and clinical practice and draw boundaries which will facilitate professional control, and autonomy of their expertise. It is the

time for the Omani government based in the Council State to create a professional regulatory body for healthcare professionals to put in place policies and standards to ensure the quality of health practices for the safety of the Omani society. The professional regulation role can be dedicated to the MOSB for being an independent body that oversees CPD activities for medical and health professionals and to expand its responsibilities to also set standards of ethics and practices and keep a register for those who are fit to practice. The regulations will facilitate health practices in Oman, including radiography, to attempt to build professional cultures and sustain exclusive control over their expertise and status.

- A Radiography Association to be re-established.

The study also highlights the role of professional organisations in the professional socialisation and identity of its members. Radiographers should be members of a professional body to exercise professional status. Radiography have to be presented to society as professions to gain trust and respect. It is suggested that academic faculty, leaders and senior members of radiography work together to promote professional radiography practice through their professional body. This would require working to establish the radiography profession officially in the country and register it as a professional body in an international context. This can be achieved by adapting local and international criteria and standards of accreditation for the profession. The professional body has to set its values and standards of ethics, scope of practice, professional legislation, and competency frameworks.

- A realistic job structure and official job description should be developed to eliminate role ambiguity and exploitation.

The study highlights the implications of organisational structure on radiographers' socialisation. The structural elements in the study that have been shown to affect the radiographers' identity are leadership, mentorship, organisational regulations, job structure and job descriptions. It is

importance to have a realistic job structure. And this can be achieved by the MoH developing realistic and official job structures that are supported with job descriptions to clarify roles and to set boundaries.

- Develop facilities and resources to create and sustain leaders and mentors
Leadership and mentorship are gears to positive socialisation and long-term career success. They play an important role in providing social support and in developing newcomers' self-efficacy, optimism and trust (Saks and Gruman, 2011). The MoH should therefore develop facilities and resources to create leaders who can communicate organisational goals, lead radiographers and promote a culture of professionalism which eventually will work to achieve those goals. It should have a set of criteria to identify leaders, train them and support them with resources so they can accomplish their roles. In addition leaders/ managers should be aware of the impact of their leadership/ management style on the socialisation process of radiographers. They should learn and adopt strategies that facilitate socialisation and promote radiography as a profession as well as achieving the goals of the MoH.
- Preceptorship and mentorship programmes to be structured.
Radiography leadership and institutions should use the expertise of senior radiographers to support novice members through effective and structured preceptorship and mentorship programmes. These programmes support newcomers with the information and resources and facilitate their adjustments. Through role modelling and instant and constructive feedback, the programmes will guide them to the expected and accepted values and behaviours. They are an effective approach to training and shaping the newcomers and to focus their thoughts and feelings.
- Relicensing system should be considered.
Relicensing and accreditation systems should be considered for radiographers and other professionals in Oman. These systems will ensure

that only those who possess the values, attitudes and behaviours consistent with professional regulations and standards are fit to practice.

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Reflection on My PhD

PhD student begins their study journey with some hypotheses that they would like to investigate. They go through a process of learning and developing skills to create them as researchers. In this chapter, I will present a reflection on my own PhD study highlighting the experiences and the learning achieved. On reflection over the years invested in the PhD study, I can say that every stage of the PhD has led me to challenging experiences. Part of the experience was exciting and part was with difficulty and frustrating.

The first challenge started when I first started the PhD when I had to reconsider my research proposal which was on developing a competency framework for Omani senior radiographers. Over the first six months reading around the professional competency models and reflecting on the context of Omani radiography practice, guided me to my research topic, it was a fascinating experience to discover the right topic and an area of my interest as a senior member in the field in my country.

The second challenge was on obtaining ethical approval in Oman. As the process unexpectedly took longer to obtain the approval from the Ministry of Health ethics committee, it was a frustrating experience. Being in Oman allowed me to follow up and meet the officials after the recommended period for approval had finished. Having this experience and learning the reason for the delay gave me the insight as to how the committee and the organisation manage research proposals. It is something that I'll consider in future projects.

The third challenge was on going to the field and collecting data. Soon after the ethical approval, I started contacting the authorities to gain permission to enter the hospitals and health centres to begin collecting data. It was the most exciting stage because I was going to start handling data that I will carry and manage for the rest of my PhD journey and will make my thesis. It was also exciting to see the response from some hospital and the willingness to participate in the research and support me in the communication with authorities and collecting contextual material.

Although this stage involved a lot of traveling and conversation, it was interesting because it gave me the opportunity to visit hospitals that I did not get a chance to visit it before, besides expanding my professional network to include other categories than radiography and academics such as authorities and administrators. The most exciting thing in the stage was to see my former students as radiographers in real life holding responsibilities and positions in their institutions. It was a joy to see a weaker student that had become professionally skilled, has acquired advanced skills and responsibilities and reached a good position in his department. He is pursuing an interest in his own development as a professional. On the other hand, it was sad to see an outstanding, motivated and proactive student had become an ordinary professional who works in a small institution that only cares about obtaining the basic university qualification but did not work to acquire advanced professional skills, developed herself in practice or worked for the development of the profession. On the reflection of these two cases, the workplace environment, professional structure, society culture and family influences were the factors responsible for shaping them.

However, the data collection stage was not free from challenges. The challenges I faced were with some authorities who delayed responding to my request to interview radiographers in their institutions and those who refused the idea of interviewing only one radiographer in their hospital. It was fascinating to see how my management strategies and interpersonal skills resolved all of the difficulties. As I decided to first work with the approved cases and leave the rest to the end. Then, I asked for face to face meetings to explain the research topic and the data collection procedures verbally. I learned that management skills and interpersonal skills are the keys for overcoming challenges with authorities. Regarding the conducting of the interviews, participants' characteristics ranged widely from talkative to reluctant and from happy radiographers to unsatisfied radiographers and from proactive radiographers who achieved progression to naive and just satisfied with minimum achievement. It was sad to hear some of the radiographers' stories and to learn the degree of injustice that afflicts them in their careers as a result of a lack of professional structure. On reflection, I can see how the OAR failed to promote the

radiography in Oman as a profession and to put in place structure that could support and guide the radiographers.

Translating the Arabic audio recorded interviews into English was an issue. It was not easy to find professional translators who can translate and transcribe and who have the experience of working with PhD projects. After horrendous efforts, an agency who claimed to have the experience with PhD translation was contacted and agreed to do the work. Despite the time and effort to explain to them the importance of accuracy and translating everything participants said and to avoid omissions, the quality of the product was not satisfactory in terms of accuracy and authenticity of the information. After the discussion with the supervisors, it was agreed that I would have to do it myself and submit it later to a proof-reader. Although this process was initially unplanned, tiring and time-consuming, it was very beneficial as it made me immerse myself into the participants' narratives and to raise more queries for the following interviews.

Writing a methodology chapter was an experience that pinches me. After weeks of writing the chapter at the end of my second year, the flash memory that contains the work corrupted on the day of submission. The incident was very harsh and frustrating, but it was a lesson that came early to teach me how I should manage my computer files. Moreover, it assured me of the support of my supervisors who appreciated the impact of the incident, extended the submission date and gave me advice on saving my work.

Being away from continuous interaction with fellow PhD students was an issue that I had to resolve. When I came back from Oman for the data analysis, I realised the importance of this interaction and requested to be surrounded with other PhD students who are conducting qualitative research so we can share our experiences and support each other. I missed that when I was allocated in the laboratory of the Institute of Translational Medicine (ITM). When I was moved to the Institute of Psychology, Health and Society (IPHS), besides being with other students who are carrying the same type of research and able to attend the relevant scientific events

suitable relations, I became more productive and focused. On reflection, I think I should have asked to be transferred from ITM from the time I realised that it was not a suitable environment for my study.

Data analysis process was a stage of emerging more into the data and comparing the finding with the collective material. The findings offered the understanding on the queries developed and the emotions I felt during the data collection stage. For example, the findings made me understand that a particular participant who appeared emotionless was affected by an authoritative and disciplined management and an unfriendly culture. It also clarified for me that a supportive management and work culture makes a stranger feel easy and welcomed as I felt in one particular hospital. Data analysis also gave an insight to the reality of the radiography culture in Oman.

The shocking aspect of my PhD was when I was asked by my supervisors to submit four chapters in a month's time. I did not expect it, nor was I prepared at that time for the submission. It was a very stressful moment to an extent that I could not control my emotions. However, with the support of my primary supervisor and encouraged by the people around me, I submitted a good draft of the thesis and unexpectedly impressed the supervisors. On reflection, I found myself to appreciate the system adopted by the University of Liverpool that every year PhD students have to write a chapter that contributes to their thesis.

Finally, I found the writing task challenging on aligning the findings with the background and the literature review. However, it helped in keeping focused on the main thesis and research questions.

On the whole, going through the PhD journey of collecting data, translation, analysing data and writing up was a process of finding myself as a researcher and a person who can initiate and guide (and lead if required) the development of the radiography profession in Oman. This would be based on this thesis which clarifies the attributes and procedures needed to establish a profession.

Appendices

Appendix One

Field Note

Interviewee one (PS01)

Hospital	Age	Sex	Experience	Educational level	Venue	Time	Duration
Royal H.	28	M	8 Y	Diploma	Departmental Seminar room	1.30 p.m	2 hours
Verbal Communication	The participant used strong words like fear, espionage, spy, threat and surrender during the interview and was repeated several time						
Non- verbal Communication	The participant was calm throughout the interview but was generally unhappy and did not expressed sense of humor or laugh. He was stable and did not change his setting posture. He was handling a plastic bottle of water on his hand through the interview. He drank the water at the beginning and at the end of the interview. The voice tone and facial expressions was constant throughout. He made me a bit concern and wanted to find out more about his relations with colleagues and the culture of his department.						
Contact prior to the interview	We had about 10 minutes greeting and chatting about families and studies to gain a repo						
Chat after the interview	<p>We had few minutes chatting after the interview, the following was noted</p> <ul style="list-style-type: none"> - The participant was preserved with some information (his relationship with the in-charge radiographers was limited to the morning greetings only. This was explained because of her being treating radiographers unequally and there were several clashes with her because this another incidents in the department) - The participant offered to recommend names for interview from other hospital who can talk about problematic issues in their hospitals in which I had to explain that I am not targeting certain issue or participants. 						
Documents to be collected based on this interview	The job description pointed out by the interviewee turned out to be a Room duty in the Angiography room. On questioning, there are no job description for radiographers						
	Employment documents and procedures: The ministry of health Issues an endorsement for all its employees and indicated the date where a radiographer is officially enrolled in the Ministry of health. The date was found to be the date where the participant started the internship						
	<p>Policy on radiographers conducting cannulation and injecting contrast media</p> <ul style="list-style-type: none"> - No written policy or Endorsement on radiographers conducting cannulation and injecting contrast media. 						
	<p>Annual Appraisal Policy</p> <p>This was Found in Chapter four of the Government Civil Service Regulations</p>						
	<p>Grievance policy</p> <ul style="list-style-type: none"> - According to an officer in the staff affair department in his institution, there is no policy on grievance in place, if a radiographer want to appeal, than he can put it in writing to the staff affair department in his institution. - It was a radiology department undocumented and internal procedure on grievance. The procedure was as explained by the participant in the interview 						

Understanding the Professional Socialisation of Omani Radiographers

Al Maslahi, Hasna

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Research Proposal: Understanding Professional Socialization in Omani Radiographers; A Phenomenological Approach

Introduction

The Sultanate of Oman is in the south eastern corner of the Arabian Peninsula, and covers a total land area approximately 309.5 thousand square kilometres. The land area is composed of varying topographic features: valleys and desert account for 82 % of the land mass, mountain 15 % and the coastal plain 3 %. Oman's population is approximately 3.897 million; 56% are Omanis and 44% are expatriates (The National Centre for Statistics and Information, 2013). The expatriates are mostly guest workers from India, Pakistan, Bangladesh, Morocco, Jordan, and Philippines. 50% of the population live in Muscat and the Batinah coastal plain northwest of the capital.

The health care system in Oman has witnessed great development since 1970, when the Ministry of Health (MoH) was established in the era of the new government. The MoH constructed hospitals and health centres at national, regional, sub-regional and local levels. Health care services in Oman are also provided with other government hospitals/clinics such as those belong to the Sultan Qaboos University (SQU), the Ministry of Defence (MoD), the Royal Oman Police (ROP), and the Petroleum Development Oman (PDO), in addition to number of private hospitals and clinics. However, the MoH remains the main agency responsible for the provision, coordination and surveillance of the health sector, and is generally responsible for ensuring the sector's progression and development. The MoH develops health policies and programmes and ensures their implementation in coordination with all related ministries, health services, and other institutions under the government, as well as those in the private sector (Ministry of Health, 2012).

Over the past 40 years the structure of health systems has developed at a rapid pace, and the quality of health services have improved considerably. The evolution has been remarkable and some facilities are now comparable with those of developed countries. As part of the health service radiology departments have largely developed from small units with general X-ray rooms and a fluoroscopy machines, to large, modern and state of art departments with most of the radiographic imaging modality services and up-to-date technologies.

Radiography practice in Oman started prior to 1970, largely through the efforts of the American mission that trained a small number of Omanis as x-ray technicians, operating small mobile x-ray machines (Director General of Education and Training, 2013). From 1970,

the MoH employed expatriate radiographers to manage and operate radiography departments. In the 1980s, the MoH created a number of health institutes to develop a local labour force, to cover its need for healthcare manpower which the government considered a vital factor in the economic and social progress in the country. A diploma radiography training programme was initiated in 1986 in educational institutes, who award the diplomas. Most recent available figures from 2011 show that 457 Omani radiographers have graduated from the radiography programme and joined the service (Ministry of Health, 2012).

The radiography services in hospitals have expanded over the past four decades to include the installation of advanced imaging modalities and the introduction of new technologies, for example, Computerized Tomography (CT), Magnetic Imaging Resonances (MRI), Ultrasound (US), Radionuclide Imaging (RNI), Mammography, Bone Densitometry, Cardiovascular imaging, Radiology Information system (RIS) and Picture Archiving Communication Systems PACS. Additional services, such as catheterization, angiography, Radionuclide imaging, Radiotherapy, Cardiac CT, Oncology CT and Pet CT, were only installed in the hospitals where these services are offered to their customers. The expansion began in the capital area Muscat and later spread to include all provinces. The development in the radiography departments and imaging modalities stimulated a need for radiographers with higher qualifications, and a requirement for some to specialize in different imaging modalities and technologies with relevant qualifications. In response to this need, the MoH offers four bachelor and two master scholarships in radiography each year, for study abroad.

However, the development of manpower and modern hospitals with sophisticated and updated technologies is associated with an expectation for radiographers to demonstrate best practices in the face of ongoing demand in providing quality healthcare. However, the delivery of the best quality radiography services is compromised by several factors;

- As the main agency in the health care system that produces policies, the MoH has not created policies that govern the practice of radiography or the use of medical radiation in the Sultanate of Oman. There is no system in place that monitors the clinicians practice, or even the radiation doses delivered to patients (Al-Lamki, 2011).
- The job descriptions and career structure for radiographers. Until February 2014, the job structure in Omani radiography was composed of three levels only;

Radiographer, Senior Radiographer, and Supervisor Radiographer, and none of those designations were supported by job descriptions. This creates a problem in distinguishing the role responsibilities at each level, particularly the differences between seniors and supervisors. There is little to determine how a senior and a supervisor should operate and nothing to define their roles and the competencies they should demonstrate. There is a general misconception that the supervisory grade is an administrative or a managerial position. In many cases, as soon as radiographers are promoted to supervisors, their focus becomes more administrative and managerial, and they move away from the practical work. This shift results in junior members having insufficient support and supervision, mainly in the general areas where experts are required to ensure patient safety, optimising radiographic services, and facilitating skill development in junior staff. Due to an absence of managerial posts in professional departments in the MoH, supervisors are also often requested by hospitals to take responsibility for a department, alongside a medical lead. However, in February 2014, a new Ministerial decree was issued on regulation governing functional affairs medical and paramedical. It is composed of 13 financial grades and 15 job titles for radiographers, but related job descriptions have not yet been issued (Alwatan.com, 9th February 2014).

- There are no guidelines or protocols in place to support new roles in radiography. Currently there are two extended roles for Omani radiographers; first, administering Intravenous Injections (IV) is permitted in tertiary hospitals for radiographers working in CT and MRI suits. Second, obstetric ultrasound is performed by radiographers in Muscat Polyclinics and health centres. The intended purpose of this extended role responsibility for radiographers was to reduce the work load of the gynaecologists. However, in both cases, policies have not been developed to support radiographers in their extended roles, nor has there been any clarification of the type and duration of the training that they should receive to enable them to fulfil these responsibilities safely and competently.
- The appraisal system for radiographers is unclear. At the end of each year, all staff in the MoH and its institutions are appraised using a standard form designed by the Ministry of Civil Services (Hassan bin Ali, 2011). This form is applied for all professions: administrative, medical, technical, and educational staff. It is vague in

its design and does not address specific professional issues. Employees are not informed of the results of their appraisal and do not receive feedback of their strengths and weaknesses. The appraisal process therefore does not encourage self-improvement or assist in providing staff with any guidance on their career choices.

- Although there has been more than forty years of radiography practice, and the Omani Association of Radiographers was established in 2004, the radiography profession in Oman is still considered as undeveloped profession. It does not have a professional regulatory body, or a set of professional values, standards and code of ethics.
- Absence of orientation programmes; Hospitals relay on training programmes to prepare graduates for their professional roles, when they join the service immediately after graduation. There is no clear structured orientation programme that the novice radiographer has to attend. Some graduates will be attached to experienced radiographer and some will be allocated to a post straight away. The case that make more difficult for a newcomer to learn about the workplace and to integrate with the professional group.
- As a result of the factors outlined above, the profession lacks role models who can lead practice and facilitate the development of competent professionals.

Problem Statement

There are numerous professional issues related to radiography practice in Oman which raise concerns about professional socialization. There is no evidence to show how Omani radiographers undergo the transition from student to practitioner, nor how they subsequently acquire professional identity as they socialize in their workplace. More crucially, little is known about how they make sense of their experiences in learning professional norms and constructing their identity as a radiographer. This study has therefore been designed to fill this gap in professional knowledge. To understand the Omani radiographers' experiences, a phenomenological design is the appropriate methodological approach to the research, within the theoretical framework of occupational socialisation.

Research Statement and Objectives

- The aim of this research is to explore the lived experience of professional socialization in Omani radiographers through a phenomenological enquiry. This aim will be addressed by,
 - o Describing the process of constructing a professional role identity
 - o Exploring the radiographers lived experience in constructing professional identity
 - o Understanding how professional socialization impacts on professional commitment.

Literature Review

Exploring Professional Socialization

Socialization is a lifelong process that begins with learning the norms and roles of the family and subculture, and making self-concept. As individuals grow older and join new groups and assume new roles, they learn new norms and redefine their self-concept (Dinmohammadi, Peyrovi and Mehrdad, 2013). That suggests that socialization may be primarily occurring in childhood, and occurring later in the process of socializing in larger communities (Elder-Vass, 2012).

Socialization is a process of interaction in which people learn the roles, statuses, and values necessary for participation in a social environment. Socialisation refers to “the process that a learner undergoes as they make the transition into a target community of practice” (Bremner, 2012). The concepts of socialization and professional socialization are often used interchangeably. There are many definitions in the literature on professional socialization. Dinmohammadi et al (2013) revealed that professional socialisation is unpredictable, unavoidable and complex socialisation process by which a person acquires the knowledge, skills and sense of professional identity that are characteristic of a member of that particular profession. It involves the internalisation of the values and norms of the professional group into the person’s own behaviour and self-concept. Abbott (1988, 31) defines it as: ‘that process through which individuals are influenced or moulded to assimilate and reflect the value dimensions of a given profession’. It is also referred to the process through which novice practitioners are merged into the profession to become professional practitioners (Ashktorab, et al., 2013). These definitions share common themes. The first being the concretisation of values and norms; the novice enters the group with a set of values, which may change during the socialisation process to reflect the values held in high esteem by the profession. The second being an assumption that when values

change, behaviour will change accordingly. Thirdly, on a socio-psychological level, the theory of socialisation assumes a change in the individual's concept of self, to such an extent that an identity is developed within and for the profession. The fourth theme is integration, which proposes that the main aim of socialization is the integration of the novice into the profession, (Basova, 2012), and fifth the recognition of changeable professional societies, suggests an ongoing, dynamic process, which is context dependent. It has also been suggested that the process of socialization continues throughout an individual's life (Dinmohammadi et al., 2013).

Professional Socialization Process

Professional socialization is an ongoing adult process and a facet of lifelong learning (Weis & Schank, 2002). It is not linear, but a personal trajectory which varies from person to person. Some people move rapidly through the socialization process, but others move slowly and with difficulty (Dinmohammadi et al., 2013), in a way that is related to factors such as previous experience, level of maturity and interpersonal skills relationships. It is a critical process in a professionals' development, which begins with entry into the profession training programmes and continues with entry into the workforces (Weis & Schank, 2002). Therefore, the higher education process is considered as the first step in shaping professional socialisation. It involves the student's inclusion by stages into the professional system along with the formation of the knowledge and skills necessary for future professional practice. During the training stages, students undergo a process of shaping the personality of the targeted profession (reconstruction). They start to learn and subconsciously internalise values, customs, obligations, and professional responsibilities that are characteristic of the profession (Mooney, 2007; Tradewell, 1996; Weidman & Stein, 2003).

During the training period, learners go through the process of anticipatory socialisation in which they 'rehearse' for future roles, positions and social relationships (Cornelissen and van Wyk, 2007). Social and psychological adjustments to a role begin during this first period. Learners develop images of what they feel will be expected of them and start to prepare themselves psychologically for what they expect the roles to be. The anticipatory professional socialisation is generally considered necessary for subsequent adjustment to the acquired roles, and the adjustments are dependent on the degree of accuracy of what is transmitted to the learners and what learners perceive.

In the workplace, professional socialization is the fundamental process for consolidating the knowledge, skills, attitudes, and behaviours learnt in professional training programmes and are necessary for constructing professional roles identity (Price, 2009). “Professional identity”, which has been defined as a “relatively stable and enduring constellation of attributes, beliefs, values, motives, and experience in terms of which people define themselves in a professional role” (Ibarra, 1999). It is crucial in its very early stages where the novice works hard to be accepted into the social culture. The process is dynamic, which changes with both time and context. Where a new employee constructs a professional role, or reconstructs the role as his/ her claim within the organizational structure.

When graduates join workforces, they go through a transition stage. A central aspect of becoming an accepted member of a workplace community is acquiring the discourse of that community. They have to gain an understanding of the workplace environment (Bremner, 2012), to recognize the role the workplace itself plays in learning, and to appreciate the social environment of the place. They have to learn the orientations and resources and practices that allow one to interact within a professional group. This requires dynamic interactional process between expert professionals and novice practitioners.

Professional Role Identity Construction

Developing a sustained interest in the profession is to relate the self to the profession, and this relatedness is motivational. Generally we know that motivation is goal-directed behaviour, and in this case the goal is to become an accredited professional (Senay, Albarracín and Noguchi, 2010). This is associated with the enactment of a professional role (Chreim, Williams and Hinings, 2007). Enacting a particular role gives rise to “role identity.” The identity is thought to “contribute to the development of commitment to the occupation as a life career and to a shared identity, a feeling of community (Pratt, Rockmann and Kaufmann, 2006). Identity construction is viewed as more interactive and more problematic than the relatively straightforward adoption of a role. The dynamics underlying construction of a professional role identity is timely.

Professions and organizations contribute in shaping members’ identity (Schaubroeck, Peng, and Hannah, 2013, Akesson and Skalen, 2011, and Chreim et al., 2007). In highly professionalized fields, institutional forces such as professional associations and governments can constrain or enable the construction of role identity. For example strongly institutionalized beliefs and values define professionalism or alternative institutional templates define what constitutes professionalism. Regulations that specify what a

professional can or should do impact on how professional role identities are constructed. Professions are said to exercise control by such means as training, testing, and setting standards & codes of practice (Chreim et al., 2007). Thus, the view is that strong identification inducement processes shape the identity of members of developed professions.

When identity formation is developed to a specific professional role, the practitioner is in a position to experience the role as an incumbent of the profession, and shifts from viewing it from an outsider's perspective to viewing it from the inside. The core elements leading to role acquisition, identification and commitment to the professional role are knowledge acquisition, investment and involvement (Cornelissen and van Wyk, 2007).

Professional socialization is not only complex and diverse, but is also dynamic and constantly changing (Howkins & Ewens, 1999). The process has no specific pattern; it sometimes moves backward and sometimes forward, and its progress and activities are irregular and unpredictable. It can be explained in the basis of its attributes, antecedents, and consequences, and that entire process dependent on the context of a particular profession (Dinmohammadi et al., 2013). It has been found to have four critical attributes: learning, by careful listening and observation, interaction with other members of the professional group, development and professional growth, and adaptation, through the process of learning new roles and adapting to them. Transition to full professional role depends on conformity with the values, norms, educational expectations, and the reality of professional work.

The Antecedents of Professional Socialization

There are number of antecedents of these attributes of professional socialization, and they have either positive or negative consequences for professional development (Dinmohammadi et al., 2013). The antecedents that are frequently reported in nursing and health sciences literature include the provision of comprehensive orientation and educational programmes (preceptor-ship, mentorship, internship, and externship), qualified role models, educational facilities, supportive clinical environments, socialization agents, opportunities for experience, and constructive feedback.

Consequences of Professional Socialization

In a literature review study conducted by Dinmohammadi et al (2013) on professional socialization, literature revealed more positive and negative consequences. While some

studies focus on individuals, some pertain to their professional organization. The attainment of a professional identity is the central aim and a beneficial consequence of socialization into a profession (Price, 2009). Professional identity develops through interaction with other members of the particular group, and internalization of knowledge, norms, values, and culture of the profession. Result from effective adjustment followed by acceptance of professional roles ensures retention, professional and organizational stability and commitment, satisfaction, confidence, self-awareness, empowerment, acceptance of professional role, internal motivation, and productivity. The socialization process is described as complex, diverse, unpredictable and uncertain (Dinmohammadi et al., 2013).

Improper management of initial professional experiences can lead to low motivation and productivity, demoralization, and decreased care of patients. Frequent turnover, organization or professional leave, continuance of ritualized practice and bureaucratic views, role ambiguities, lack of critical thinking, repeated dismissal requests, increased attrition, and gradual desensitization about humanistic patient needs are the negative consequences of inadequate socialization (Dinmohammadi et al., 2013).

However, professional socialization refers to both the intended and unintended consequences of an educational programme and workplace processes (Mooney, 2007, and Shinyashiki et al., 2006). Fitzpatrick, While and Roberts (1996) showed that the educational programme and working environment, along with competent role models, are vital for the socialization of novice practitioners.

Philosophical and methodological considerations in study design

This study has been designed to explore the lived experience of professional socialisation in Omani radiographers, and will employ a phenomenological approach.

The philosophy of phenomenology originated from the writings of Husserl. As cited by Bevan (2014), Husserl (1970) explained the natural attitude in the lifeworld where the “consciousness of the world” provides a context for experience. Husserl regarded experience as the fundamental source of knowledge. Phenomenology precisely investigates the experience of the lifeworld in natural attitude with the focus in on primeval form (Dowling, 2007). Therefore, a phenomenological researcher is interested in describing a person’s experience in the way he or she experiences it. Husserl’s theory focuses on describing and thematizing experience in a systematic way (Bevan, 2014). It uses themes of contextualizing experience, apprehending the phenomenon, and clarification of the

phenomenon. Thus, study procedure using Husserl's theory requires the use of descriptive and structural questions along with the novel use of imaginative variation for descriptive adequacy.

Building from Husserl's theory, Merleau-Ponty proposed phenomenology as a mechanism to rediscover first experience without reflection, which was called the "phenomenology of origins" (Dowling, 2007). Merleau-Ponty's position, which is well utilised in nursing research, describes four existential considerations. These belong to the fundamental structure of the lifeworld and are described as lived space (spatiality), lived body (corporeality), lived time (temporality), and lived human relation (relationality or communality). These elements are central to the process of phenomenological questioning, reflecting and writing.

Phenomenological data analysis focuses on specific features; the original descriptions of participants are divided into units, the units are then transformed by the researcher into meanings that are expressed in psychological and phenomenological concepts and these transformations are combined to create a general description of the experience. However, a key epistemological strategy of phenomenology is the concept of phenomenological reduction which initially was proposed by Husserl. Phenomenological reduction is applied to contain researchers' knowledge judgment or beliefs as a natural attitude by acting 'deliberate naiveté' (Dowling, 2007 and Kvale and Brinkmann's, 2009). Husserl expressed reduction as the means of thematizing people's conscious experience of phenomena (Dowling, 2007). Reduction is also known as bracketing in phenomenological studies.

Phenomenology is philosophically complex and its research approach does not follow rigid structures or processes. Whilst this facilitates access to rich and detailed accounts of the lived experience of participants it also allows for distraction, confusion and methodological criticism (Bevan, 2014 and Norlyk & Harder, 2010). Various methods used in phenomenologically-based research for data collection, include interviews, participant observation, action research, focus group meetings and analysis of personal texts. However, interviews are recognised as the most useful method for obtaining descriptions of context and eliciting meaning of the phenomena (Englander, 2012 and Bevan, 2014). Thus phenomenology scholars have stressed the importance of researchers employing broad and open ended questions during interviews, and asking questions in the vocabulary

and language of the participants in order to give participants the opportunity to express their view point 'extensively' (Giorgi 2000, and Bevan, 2014). Throughout interviews, researchers are required to obtain descriptions of actual meaning of experience from participants by bracketing their own knowledge and pre-conceptions. Questions should aim to encourage participants to describe specific situations and actions and not general opinions (Bevan, 2014). Active listening should also be employed to define areas for clarification and probing.

The number of participant interviews required in a phenomenological study varies considerably. Benner (1994) suggested more than a single interview for each subject. Seidman (2013) suggested three interviews per person; the first to describe the life history to provide context, followed by an interview aimed to reconstruct the experience of interest with its relationships and structures, and finally an interview that allowed the respondent to reflect on the meaning of his or her experience. Englander (2012) provided an explanation of the phenomenological interview process to obtain a complete description as possible of the experience that the participant has lived through by applying subject-subject relationship and subject phenomena meaning. However, Bevan (2014) has also proposed a single interview structure that offers an explicit, theoretically based approach which enables application of phenomenology as a total method for research. His proposed phenomenological interview technique consists of three main domains: contextualization (natural attitude and lifeworld), apprehending the phenomenon (modes of appearing, natural attitude), and clarifying the phenomenon (imaginative variation and meaning).

For the sake of obtaining a holistic description of an experience, interviews are most usefully designed as unstructured, but focused 'conversations' between participant and researcher. Unstructured interviews involve a broad area to explore and the researcher largely follows the direction of the participant (Pettya, Thomsonb and Stew, 2012), using a topic guide to maintain focus on the phenomenon of interest. Context and experience descriptions provide suitable material for variation because it is context that provides meaning for the experience. It should be remembered that phenomenological method is a total method in that researcher is immersed in it from the start and not only at the point of data analysis. Researchers need to remain faithful to phenomenological method by implementing its principles: description, lifeworld, modes of appearing, phenomenological reduction, imaginative variation, and open attitude throughout interviews (Bevan, 2014).

Additionally, Husserl (as cited by Bevan, 2014) indicated that personal biography provides meaning to an experience. Therefore, it is important to link social, cultural and political contexts from which the experience gains meaning to be able to understand participants' experience (Tuohy, et al., 2013 and Bevan, 2014).

Significance of the Study

The findings of the study will generate knowledge and understanding of the lived experience of Omani radiographers. This study will be significant in the sense that it will:

- describe the process that Omani radiographers undergo in constructing their professional identity.
- provide useful knowledge on factors contributing or hindering their professional development in Oman.
- allow identification of the roles that education and organization (the MoH) play in professional socialization.
- provide directions for future educational and organizational strategies in relation to the development of human resources in radiography.

Scope of the study

The study will be conducted in the Sultanate of Oman and will focus on the Omani Radiographers working in the Ministry of Health hospitals.

Method of Investigation Research population

The population of this study are Omani radiographers working in the Ministry of Health. By 2012, there were 856 radiographers working in the Oman; 73% of these are in the MoH hospitals, 8.6% in governmental non-MoH, and 18.3% in the private sector. 65% (556.4) of radiographers in the MoH are Omanis (Ministry of Health 2012).

Recruitment and Sampling

As the data collection strategy aims to secure rich sources of data, purposive sampling strategies will be employed (Kvale and Brinkmann's, 2009). The goal is to contest the notion that exhaustive sampling is the only legitimate form of understanding the experience of Omani radiographers. Participants will be recruited until data saturation and data sufficiency, which can guide decisions related to enacting closure when searching for

relevant information and evidence in understanding the experience, is reached (Englander, 2012). Omani radiographers will be recruited on the bases of potential for active engagement in the study. The researcher will introduce the aim of the study to help develop a relationship with the participants. A minimum of one year experience as a radiographer in Oman will be the condition of inclusion in the study.

Recruitment of potential participants to the study will be through recommendations from researcher's professional network. All volunteers will be given a copy of the participant information sheet, and allowed at least forty eight hours to consider their participation before arrangements for the interview are made. Interviews will be arranged at a time and location to suit the participant, and all will be asked to sign their informed consent to participation in the study.

Data Collection

Data will be collected by conducting interviews with study participants. Additional contextual information to locate the participants' accounts in contemporary temporality will be extracted through review of official documents, such as policies and guidelines.

Using phenomenological principles, a single unstructured interview will be conducted with each participant in order to elicit context and explore in-depth the participants' experience. Face to face interviews will be conducted in Arabic, audio-taped for later transcription. The transcripts will then be translated into English by professional translators before the analysis.

Data Analysis

The interviews will be transcribed and saved electronically. Thematic analysis method will be employed to identify emergent themes which given an account of the participants lived experience. Codes will then be compared across the whole data set to identify variations, similarities, patterns and relationships between themes are then going to be identified to create meanings in the texts. This approach will allow conceptualization and provide insight into the understating the experience of Omani radiographers (Ashktorab, 2013, Franzosi, et al., 2013). Nvivo software will be used to store and order analysed data.

Pilot Study

A small pilot study using phenomenological interviews as methods for data and analysis of the findings will be carried out with two British radiographers to identifying logistical

problems which might occur. It will also help to develop researcher's skills in conducting and analysing phenomenological interviews.

Ethical Approval

Ethical approvals are required from both the University of Liverpool Ethic Committee and the Omani Research and Ethic Committee (REC), before proceeding with the study. No participants will be approached until ethical approval has been obtained. Verbal and written explanation will be given to participants to explain what the research entails, how the data will be managed and stored and how study results will be reported. All participants will be assured of confidentiality and anonymity and asked to sign consent forms to indicate understanding and willingness to participate (Mauthner, et al., 2002).

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Appendix

	One Year Work Plane													
	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Conducting Pilot Study in Liverpool, UK														
Discussion with supervisors on the outcomes of the pilot study														
Obtaining the University of Liverpool Ethical Approval														
Obtaining Oman Research and Ethic approval														
Training on Nvivo software for Coding Qualitative Data														
Approaching hospitals and participants														
Data collection, Transcribing, Translating and Initial Analysis														
Discussion of the results														
Coding and in depth analysis of the collected data														
Writing of the of the Methodology and results														
Participating in PGR poster day														
PGR Annual Talk														
Submitting end of the year PGR progress report														
Attending PGR advisory panel														



Committee on Research Ethics

PARTICIPANT CONSENT FORM

Title of Research Project:	Understating Professional Socialization in Omani Radiographers	
Student Researcher:	Hasna Al-Maslahi	
Research Supervisors:	Dr Stuart Mackay and Dr Maria Flynn	Please initial box
1. I confirm that I have read and have understood the information sheet dated [12/8/2014] for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.		<input type="checkbox"/>
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline.		<input type="checkbox"/>
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.		<input type="checkbox"/>
4. I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications.		<input type="checkbox"/>
5. I understand and agree that my participation will be audio recorded / and I am aware of and consent to your use of these recordings for your PhD Project.		<input type="checkbox"/>
6. I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.		<input type="checkbox"/>
7. I agree to take part in the above study.		<input type="checkbox"/>

_____	_____	_____
Participant Name	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature
_____	_____	_____
Researcher	Date	Signature

Principal Investigator:

Dr Stuart Mackay
 School of Health Sciences
 University of Liverpool
 T: 0044 151 794 5805
 E-mail: stuartm@liverpool.ac.uk

Student Researcher:

Hasna Abdullah Al-Maslahi
 P.O Box: 972
 Postal Code: 111 Seeb, Sultanate of Oman
 T: 92841221
 E-mail: hasnaa.al-muslahi@liv.ac.uk

[Version 3, 12/8/2014]

[Version 3, 12/8/2014]



Participant Information Sheet

Title of the Study

Understanding Professional Socialization in Omani Radiographers

Invitation

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask if you would like more information or if there is anything that you do not understand. Feel free to discuss with your family or colleagues. I would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

Thank you for reading this.

What is the purpose of the study?

Radiography in Oman has developed and expanded its services over the past forty years to include installation of advanced imaging modalities, introduction of up-to-date technologies and recruitment of qualified manpower. However, radiography still can be categorised as an undeveloped profession due to number of factors. These include an absence of national regulations, policies and monitoring systems for radiography practice. At the professional level there is no regulatory body, and in addition the job and role descriptions for radiography practice are poorly defined.

As radiography in Oman continues to develop it is important for both policy makers and practitioners to have an understanding of how best to support the profession in the provision of the highest quality care. In this context this study has been designed to investigate how Omani radiographers undergo the transition from student to practitioner, and how they subsequently acquire their professional identity as they socialize in their workplace.

Why have I been chosen to take part?

You have been invited to participate in this study because you are an Omani radiographer working in one of the ministry of health hospitals and you have one or more years working experience in Oman.

Do I have to take part?

No. There is no obligation to take part.

What will happen if I take part?

If you agree to participate in this study, you will be invited to attend a single interview carried out by me (Hasna Al-Maslahi, PhD student at University of Liverpool). The interview may last between half an hour to two hours. It will be in Arabic and audio-recorded. The interview will then be transcribed and translated into English. The data will be stored in the University of Liverpool server and will be only seen by me and my research supervisors. All information will be kept confidential and the interview will be anonymous. You have a choice to select the date, time and a venue for the interview to take place.

The interviewer will not use your name during the interview and you will be identified from the start of the interview by an allocated participant number. Only the student researcher will know your identity. You will be encouraged to talk about your life experience in relation to your career as a radiographer.

You are free to discuss any issues you feel are appropriate, and there will be no pressure at all for you to discuss anything that may be considered sensitive or embarrassing to you, similarly you are free to discuss any issues that you feel are appropriate.

Expenses and / or payments

There will be no payment for your participation but the researcher will provide light refreshments during your interview.

Are there any risks in taking part?

It is not anticipated that there will be any risks in taking part in this research, however if you should experience any anxiety or discomfort during the interview then please make this known to the researcher immediately. The interview will be stopped and will only resume if, and when, you feel you are ready.

Are there any benefits in taking part?

Although there are no direct benefits to you as a participant, you may find it useful or interesting to have an opportunity to discuss your professional and working life. The results of this research may have an influence on the way we train and support radiographers in the future, so in the longer term your participation would be contributing to the professional development of radiography in Oman.

What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please let us know by contacting the research supervisors, Dr Stuart Mackay (stuartm@liverpool.ac.uk) or Dr Maria Flynn (m.flynn@liverpool.ac.uk), and we will try to help. If you remain unhappy or have a complaint which you feel you cannot discuss with a member of the research team then you should contact the Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

Will my participation be kept confidential?

All your data which is stored on an audio file digital format will have no participant identifiers, and will be completely anonymous. There will be no participant identifiers on the audio recording, and these recordings will only be heard by the researchers and a professional transcriber. The transcriber will type the spoken conversations so that they can be read as a written document. This transcription is necessary for the study analysis, but the professional transcriber will not know who you are. All transcriptions will refer to you only by your allocated participant number. Transcriptions and audio files will not be stored together in the same place. All material gathered will be stored in a locked cabinet in a locked room in the student researcher's place of work. Signed consent forms will also be kept separately from the transcribed data, but also locked in the cabinet in the locked room.

The data will be used to structure a research thesis and may be used in future research studies. All data will be fully anonymised. For the purposes of this study only the student researcher and her supervisors will have access to the data.

What will happen to the results of the study?

A thesis will be prepared and submitted to the University of Liverpool for examination for the degree of Doctor of Philosophy. A summary of the study findings may be presented to the Ministry of

Health. Following completion of the thesis academic papers may be published in health related academic journals. If you would like to read any published material the researcher will be happy to give you details of any publications.

What will happen if I want to stop taking part?

You are free to withdraw from the study at any time, without explanation. Any data collected up to the point of withdrawal may be used, if you are happy for this to be done. Otherwise you may request that all data are destroyed and no further use is made of them.

Who can I contact if I have further questions?

Hasna Abdullah Al-Maslahi

P.O Box: 972

Postal Code: 111 Seeb, Sultanate of Oman

T: 92841221

E-mail: hasnaa.al-muslahi@liv.ac.uk

Appendix Five

From: IPHS Ethics <iphsrec@liverpool.ac.uk>

Date: 20 August 2014 14:53:11 BST

To: "Mackay, Stuart" <stuartm@liverpool.ac.uk>, "Flynn, Maria" <mkenrick@liverpool.ac.uk>

Subject: IPHS-1314-347-(Understanding Professional Socialization in Omani Radiographers)

Dear Stuart

I am pleased to inform you that IPHS Research Ethics Committee has approved your application for ethical approval. Details and conditions of the approval can be found below.

Ref: IPHS-1314-347-

PI / Supervisor: Stuart Mackay

Title: Understanding Professional Socialization in Omani Radiographers

First Reviewer: Fernand Gobet

Second Reviewer: Eric Robinson

Date of Approval: 20.8.14

The application was APPROVED subject to the following conditions:

Conditions

- 1 All serious adverse events must be reported to the Sub-Committee within 24 hours of their occurrence, via the Research Governance Officer (ethics@liv.ac.uk).
- 2 This approval applies for the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, IPHS REC should be notified as follows. If it is proposed to make an amendment to the research, you should notify IPHS REC by following the Notice of Amendment procedure outlined at <http://www.liv.ac.uk/researchethics/amendment%20procedure%209-08.doc>.
- 3 If the named PI / Supervisor leaves the employment of the University during the course of this approval, the approval will lapse. Therefore please contact the Institute's Research Ethics Office at iphsrec@liverpool.ac.uk in order to notify them of a change in PI / Supervisor.

Best Wishes

Liz Brignal

Secretary, IPHS Research Ethics Committee

Email: iphsrec@liv.ac.uk

<http://www.liv.ac.uk/psychology-health-and-society/>

Attachment 3

(Form 5.3)

سلطنة عمان

وزارة الصحة – دائرة الدراسات والبحوث

لجنة مراجعة و اجازة البحوث من الناحيتين العلمية و الأخلاقية

استمارة موافقة المبحوث على المشاركة في البحث

Certificate of Informed Consent

أقر أنا /

الإقامة: النوع: السن:

بأنني اطلعت على بيان مفصل عن البحث المقدم من الطبيب/الباحثة حسنا بنت عبدالله المصلحية

طالبة بجامعة ليفرول البريطانية

الذي يهدف إلى دراسة :-

استكشاف تجربة التنشئة الاجتماعية المهنية التي عاشها فنيي الأشعة العمانيين. وذلك عن طريق،

- وصف عملية بناء الهوية المهنية
- استكشاف تجربة المهنيين في بناء الهوية المهنية
- فهم آثار التنشئة الاجتماعية المهنية على مدى الالتزام المهني.

وعلى خطوات البحث وهي :-

- إجراء مقابلة شخصية مسجلة

وأنه قد تم اطلاعي على احتمالات المتاعب التي قد يرد حدوثها من الدراسة وأنه سوف لا يترتب على عدم موافقتي على الاشتراك في البحث حجب أي خدمة طبية عني..

لقد قرأت المعلومات السابقة أو قرأت علي وكانت لي الفرصة للسؤال عما أريد وأجيببت جميعها وأنا مقتنع بذلك. والمعلومات التي تم الحصول عليها مني تعتبر سرية ولن تستخدم لغير أغراض البحث.

أوافق بكامل اختياري على المشاركة في هذه الدراسة وأفهم أنه من حقي التوقف عن المشاركة فيها في أي وقت لاحق دون أن

يؤثر ذلك على الخدمة الطبية المقدمة لي .

اسم المشارك :

العنوان :

الهاتف :

التوقيع :

التاريخ :/...../.....

وظيفته:..... اسم الشخص الذي حصل على موافقة المبحوث:.....

<i>Sultanate of Oman</i> <i>Ministry of Health</i> <i>Directorate General of Planning</i> <i>and Studies</i>		دولة عمان وزارة الصحة المركز العام للتخطيط والدراسات
Ref. : MH/DGP/R&S/PROPOSAL_ APPROVED/28/2014		الرقم :
Date. : 24.11.2014		التاريخ :
		الموافق :
Hasna Al-Maslahi Principal Investigator		
Study Title: "Understanding Professional Socialization in Omani Radiographers; A Phenomenological Approach"		
After compliments		
We are pleased to inform you that your research proposal "Understanding Professional Socialization in Omani Radiographers; A Phenomenological Approach" has been approved by Research and Ethical Review and Approve Committee, Ministry of Health.		
Regards,		
		
Dr. Ahmed Mohamed Al Qasbi Director General of Planning and Studies Chairman, Research and Ethical Review and Approve Committee Ministry of Health, Sultanate of Oman.		
Cc Day file		

P.O. Box : 393, Postal Code : 100, Muscat, Tel. : 24601161, Fax : 24696533 فاكس : ٢٤٦٠١١٦١ ، هاتف : ٢٤٦٠١١٦١ ، مسقط ، ١٠٠ ، الرمز البريدي : ٣٩٣ ، ص.ب :

Appendix Eight

Understanding Professional Socialization in Omani Radiographers

Interview Topic Guide

1. Part 1: Demographic Information

Sex:

Age:

Years of Experience:

Level of education:

Source of Education (Local/ abroad):

2. Part 2: Description of the lived Experience

The interviews will be unstructured and will be determined by the participants' descriptions. However, the topic guide will be used to facilitate discussion and maintain a focus on the phenomenon of interest. Prompts will be used as appropriate to help participants clarify and elaborate phenomenon.

In order to make the participants comfortable each interview will start by asking them to describe a 'normal' day in their workplace.

Subsequent prompts will include questions such as;

Why did you want to become a radiographer?

What did it feel like when you moved from being a student to becoming a radiographer?

How do you relate to your radiography colleagues?

What about your relationships with other professional personnel?

How has your experience as a practitioner impacted on your professional identity?



الجمعية العمانية لمصورى الأشعة الطبية
Oman Association of Radiographers

الرقم: ج ع م 4/4/2013

التاريخ: 2013/3/31 م

الفاضلة/ اصيلة الحبسية...المحترمة
مشرفة تصوير اشعه
بمستشفى خولة

تحية طيبة وبعد...

الموضوع: اجتماع بخصوص المؤتمر الدولي السابق للأشعة المقطعية

يود مجلس ادارة الجمعية اقامت اجتماع مشترك بين اللجنة الرئيسية المنظمة للمؤتمر مع اعضاء المجلس لإستيضاح ولمناقشة المحاور التالية:

- توضيح ما تم الاتفاق عليه بين اعضاء اللجنة المنظمة واطباء مجلس الادارة قبل تنظيم المؤتمر.
- معرفة المبالغ المحصلة والمصروفة في المؤتمر.
- استيضاح المبالغ المصروفة لحجز قاعة سفير.
- التوضيح عن سبب اعطاء مكافآت مالية لاطباء دون غيرهم.
- محاور اخرى

وعلى ضوئه: نرجوا حضوركم مع اللجنة الرئيسية المنظمة للمؤتمر وذلك يوم السبت الموافق 2013/4/6 م الساعة الثانية والنصف ظهراً في قاعة الاجتماعات بمستشفى خولة

مع خالص التقدير والإحترام...



خليفة بن جمعة الشياي
رئيس مجلس الإدارة

نسخة الى/

- الفاضل/ حمدان الناصري، مسؤول خدمات الاشعة بالسلطنة
- الفاضلة/ حسناء الفصليحة الرئيسة السابقة للجمعية، رئيسة قسم الاشعة بمعهد العلوم الصحية
- الافاضل اعضاء مجلس ادارة الجمعية